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THE AMERICAN FARMER

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Foreign Agricultural Notes.

From our Paris Correspondent.

MORE VACCINATIONS BY M. PASTEUR.—In Provence, particularly in the department of Vaucluse, about 20,000 pigs annually die of a disease called *rouget*, designated by some, but erroneously, *pneumonia-enteritis*. Dr. Pasteur was invited to investigate the malady, and found it was produced by a microbe or animalcule, of a special character, approaching, but not resembling the microbe Dr. Pasteur had discovered in hen cholera. In the present instance the microbe presents the form of a figure 8, but very delicate, and next to invisible. By the rapidity of its generation in the blood of the pig, the swarms quickly live upon and exhaust the vital elements of the blood. The microbe has no effect on poultry, but kills rabbits and sheep; it is most destructive on the white race, that is, the most esteemed of pigs. M. Pasteur has artificially produced the microbe, and inoculating pigs with same, the malady was produced, followed by death, just as if the disease had been spontaneously developed. But when the microbes were produced as a vaccine, similar in plan to that adopted in the case of the *charbon* plague in black cattle, the pigs were enabled to resist the disease. However, in spring, M. Pasteur will make known the results of a wider experience under this head.

IMPROVING HORSES IN FRANCE.—France is devoting a good deal of attention to improving the breed of horses; the government has at last consented to an annexe for each regional agricultural show, specially devoted to the exhibition of horses, and where prizes will be awarded. In the way of official breeding studs and training schools, the legislature now votes 1½ million of francs annually, or more than double the grant hitherto allowed. In these studs, there were on the 1st of January last, 2,529 stallions; 218 being pure English, and 187 pure Arab blood, the rest were crosses; there are types of carriage as well as of draught horses. The 2,529 stallions covered during the season 130,000 mares; about 60 per cent of the coverings are successful. As compared with 1874, the total number of horses in France now is double, viz., 2½ millions.

THE AGRICULTURAL OUTLOOK.—In a meteorological point of view, the condition of agriculturists is lamentable, and the outlook very sombre. The rain may be said to have been continuous since June last, and the inundations have only varied in intensity. Field labor is at a stand still; cattle are housed as best they can be; they are on short rations for weeks, because it is impossible to save fodder and roots. And this is the situation only in mid-winter; autumn sowings, where they have been made, are so unpromising, that spring sowings will have to be resorted to, and were a nipping frost of any duration to set in, owing to the spongy condition of the soil, vegetation would be instantly killed off. Agricultural Societies in the presence of the dismal prospect, are taking time by the forelock. They

are forming a kind of mutual fund, based on their personal credit, to purchase seeds, arranging for time with the banks. The commercial aspect of French agriculture is not brilliant either; the country does not produce, as hitherto, sufficient cereals and wine to meet its wants. In 1875, the total alimentary importations of France during ten months, was 568 millions; at present, the total is three times greater. In 1875, France imported Spanish and Italian wines, to convert into claret represented by 108 millions of francs; in 1882, the total for the same wines was 370 millions, and the phylloxera continues to extend its ravages. Under the head of cattle, France has augmented her imports, but the contrary is the case respecting sheep and pigs. Salted or otherwise preserved animal food, is largely on the decrease, as also fresh meat, in the importation point of view. Respecting eggs, the importation has been on the increase, but as regards butter and cheese, on the decrease. Less wool has been imported last year, but it is not easy to say, whether such be caused by augmented home growths or stagnation in the woollen trade. The increased production of black cattle, such is the salient point of progress here. The yield of beet sugar will be in excess of that of last year, but it has yet to be seen how the roots will keep in the trenches.

THE SUGAR INDUSTRY has two enemies in France; a bad root and an unfair taxation. A society has been specially formed at Lille, to reconcile these two enemies, the farmer and the fabricant. The latter has been rather Draconian in his conditions, while the former expects all roots to be purchased at a uniformity of price, irrespective of saccharine difference. No agricultural produce is sold independent of quality.

The Turnip Crop—Its Value and Importance.

Messrs. Editors American Farmer:

Now that many of the planters in the dark tobacco regions of Virginia are quitting the cultivation of tobacco and substituting stock in its place, a very important practical question meets them in the start, and that is, how shall we provide the necessary winter food for the stock, and this question becomes more difficult of solution when it is remembered that this is not strictly speaking a grass country; for although many of the grasses flourish here under favorable conditions, yet owing to the frequent droughts to which this region is liable, grass cannot be made the only reliance. Fortunately, our climate and soil are well adapted to root crops, and these must be resorted to, as a supplement to grass, and first and foremost amongst these is the turnip. The Turnip can be raised here in any required quantity, and its cultivation involves but little cost and labor, and although it may not be very rich in nutritive matter, it makes a most excellent winter feed for milk cows, bees and sheep. They are easily kept through the winter, and like cold storage, are always ready for use. They are particularly suited as feed for

milk cows and bees, furnishing as they do a most timely substitute for the green food of the pasture, and when combined with corn-meal, they cause a copious flow of milk, rich in the butter making element. Combined with corn-meal, nothing is better for fattening bees. In feeding them to milk cows and bees however, there is one precaution that must be always strictly observed, and that is to have them well cut up. Otherwise there is always danger of the animals being choked. But this can be very easily and very quickly done either with a spade or a chopping axe after they have been put into a trough. Particular pains should be taken to chop up the smaller turnips, as there is more danger of their choking the animal than the larger ones. In feeding meal with the turnip nothing is necessary but to sprinkle it on the turnips after they have been well cut up. A sprinkling of salt occasionally will be necessary.

A dark gray soil is best adapted to the turnip. They do not thrive in a heavy clay soil. Nor do they require a very rich one. On a soil made rich with putrescent manure they yield a most luxuriant growth of tops with but little root. When reasonable the fertilizers act finely upon turnips, and are preferable to manures. The turnip being a potash plant, a fertilizer containing a high per cent. of potash and phosphoric acid should be applied. Little or no nitrogen or ammonia is required for the turnip. An application of from 200 to 400 pounds per acre according with the quality of the soil will be sufficient. In making choice of the land for your turnip crop, select a dark gray soil of moderate fertility, and it would be best to break it up in the spring before there is a growth of grass or weeds. Just before the time of seeding, it should be re-fallowed, then harrowed and cross-harrowed and otherwise treated, until the soil is perfectly pulverized. The best time to seed turnips is about the first of August or the last of July.

The soil being duly prepared and the fertilizer applied, the sowing of the seed commences, and this is the most difficult thing in the cultivation of the turnip, the main difficulty being to get a stand of the proper thickness. The almost universal error is to sow too thick, and entire failures are often due to this cause. It is a difficult matter to fix upon any general plan of seeding, either to the quantity of seed or the manner of getting them in. Agricultural writers recommend two pounds of seed per acre, but this writer believes that when the soil has been put in thorough tilth, and there is sufficient moisture in the soil, one pound is sufficient for an acre. In order to grow large turnips the plants should stand from 6 to 8 inches apart, or what I am inclined to think better still, from 8 to 10 inches. The old-time custom was a spoonful to the 100 square yards, but that is too much. In a conversation with an old experienced turnip-grower, he jokingly remarked that his plan was to measure out a tablespoonful, then contrive to fall down and spill one half and the remaining half would be about right.

As to the manner of putting in the seed there is considerable diversity of opinion and practice. Some sow the seed and harrow them in. Some drag them in with a brush. Some plow them in with a colter or the wing colter, whilst others plow them in with a one-horse turning plow. The value and adaptation of these different practices depend very much upon the seasons and the condition of the soil. When the soil is in proper condition to receive the seed with sufficient amount of moisture in it, the common harrow does very well, but the harrow should be run over the land several times, always running in the same direction, for in this way the seed are put in deeper and better than when cross-harrowed. But if the seeding has to be done during a dry spell, then it will be best to put the seed in deeper, using the wing colter, and even the turning plow when it is very dry, provided the soil is a light one and thoroughly prepared. I have never seen the turning plow used for this purpose myself, but I know a gentleman, Judge Farrar, of the county of Amelia, who put in his seed in this way during the excessively dry season of 1881, and whilst there was a general failure of the turnip crop, he made a fine one.

In putting up turnips for winter feeding, there is no better mode than that of the old-fashioned kiln. The tops should be cut off before they are put in the kiln, and not more than 12 or 15 bushels put in each. It is best to have small kilns, as they keep better, and when opened for use the turnips can be readily transferred to the cellar to avoid freezing. One of the best practical farmers here, and one who has had much experience in the cultivation of the turnip, prefers putting them up in long continuous kilns running southeast and northwest. When needed for use he opens the southeast end and works on to the other end.

Another important operation in this connection is, as to the proper time for taking up the turnips for kilning. Most persons take them up too soon. When this is done early in the fall they are much more apt to rot. Ordinarily the best time is about the 20th of November, or after they have undergone a freeze or two, for the freezing so far from injuring them, seems to better prepare them for keeping well.

In conclusion allow me to urge all who are turning their attention to stock, to cultivate large crops of turnips. Instead of having the small "patch" for table use as heretofore put in whole acres so as to have an abundant supply of them, for they are exceedingly valuable for winter feeding.

WM. HOLMAN.

Cumberland County, Va.

A WRITER says that he has never failed to cure garget by the use of beans. He feeds one pint of bean meal, mixed with other meal, for four successive days, and has found that quantity sufficient to cure the worst cases. He thinks if cows were fed with bean meal several times a year they would never be troubled with garget.

Maryland Wines—Local Option—The Agricultural Situation—Oysters and the Farming Interests.

Messrs. Editors American Farmer:

I am gratified to learn that Dr. Pollard and his friends have expressed so favorable an opinion of the wine.* During the recent holidays I distributed many samples among wine drinkers, and they have received unqualified praise. The *Jes* is, in fact, the first red wine I ever made, with which I am myself entirely satisfied. It was obtained by blending a sweet wine with one rather tart; resulting in a happy mean, which, I think, will please the popular taste. As a dinner wine I prefer it to the *Norton's Virginia*, which is of darker color and more body, and is generally considered the best of all American red wines.

Such is its reputation that I have no difficulty in selling my stock of it, as soon as it is old enough for market. But it is too strong a wine for my drinking. The grape itself (*Norton's*) is not valuable for the table. All things considered, I think the *Jes* the most profitable grape for this locality, since it is not only a fine wine grape, but valuable for market—ripening early, and yet holding well to the vine till late in the fall. It yields large crops and never rots. There are many better table grapes and some better wine grapes, but none so profitable.

The white wine (*Eleira*) sent you, is certainly a good wine, but as it is the first I have ever made from that grape, I do not know whether it is as good as it ought to be. If sold under a foreign label it would probably be classed, by many drinkers, among the best of still white wines. It has a singularly pleasant flavor, but is perhaps a trifle too sweet. Its beautiful color often attracts to it the lips of those who are averse to wine-drinking, but who want to know just how it tastes.

I neglected to state that these wines were grown in 1881, which was a very favorable season for the grapes. Last summer was too wet and the vintage was inferior. Fortunately there was a very good demand for the fruit and I made comparatively but little wine. The market for grapes was unusually firm and well sustained, notwithstanding the heavy peach crop. The public health will certainly be promoted by this increasing demand for grapes as a summer food. And it seems to me the cause of temperance would be advanced by encouraging the use of pure native wines, since "prohibition," as now demanded, is practically impossible. A friend, to whom I recently sent a few bottles of wine, writes to me as follows: "There is so much trash liquor and *Borgia* wine in the market, that I am not surprised at the recent victories of the prohibitionists; but there is great need of pure wine in this country, and I consider it very unfortunate that our legislators, in framing laws on this subject, should not be able or willing to discriminate between the best juice clarets now imported and such pure wines as yours, etc."

Of course you are aware that the *Local Option* law, so called, has been adopted in Anne Arundel, and after the 1st of April it will be unlawful to sell even wine or cider in this county. Thus is my labor of thirty years rewarded! *Finis coronant opus!* It is hinted that a campaign will soon be opened against tobacco. If Virgil had lived in this age, he would never have written the beautiful verses from which your journal has so aptly taken a line for its motto, viz: "*Fortunatos nintum sua si bona norint agricolae.*" Instead of being exempt from enemies, the unfortunate husbandman of the present day is literally overwhelmed by them. But as the thing is now a law, and I have already had

my say about it in the columns of one of our county papers, which were courteously opened for its discussion, I will not now pursue the subject. It is so extreme in its provisions that it will not be generally respected or obeyed. Our people desire and will have enough personal liberty to decide for themselves what, when and where they shall drink, and most of them have no inclination to meddle with their neighbors' affairs. The law was not ratified by a majority of the voters of our county, and hundreds who supported it, acted from excitement and misapprehension of its terms. The sober second thought will demand its modification or repeal.

I beg to add that your paper continues to interest me more and more. It is always pleasant to meet old friends in its pages, and I hope it may obtain many new and instructive contributors. The year just closed has been remarkable for agricultural progress and development. Among the notable events is the successful production of sugar from sorghum at a large establishment in Illinois. Although the season was not favorable for the early and full ripening of the canes, the result of the year's business is said to have been very profitable.

There are probably no better farmers in the world at this time than in the United States. But yet there is something wrong with us; for our labors, though rewarded with large productions, are not as profitable as they should be. Why are our receipts not larger, and why are our bills payable smaller? As Senator Vance said in his address at your Baltimore County Fair "*The agriculturist must look beyond his fields if he would hold his own.*" And Mr. Holman, in his communication published in your journal of November 1st, reveals some of these difficulties. I wish that every farmer in the land would read and ponder the views expressed in those papers.

I agree with Mr. H. as to the Grange organization, and in believing that the excluded political topics constitute the chief subjects requiring co-operative action. Men of all other trades and professions combine for the protection of their interests, but it is difficult to get farmers to unite even on a dog law. How impossible then to rally them under one flag in the great battle for tariff and revenue reform, now impending. It is true, there is a tendency just now to greater independence of thought and action in political affairs. Machines have been smashed and bosses have been unhorsed, and men of opposite parties are more disposed to reason together. But we know not how long the popular mind may be allowed to remain in this happy and hopeful temper. Opposed to our cause (which is the cause of the masses) there is almost countless wealth, and a very influential portion of the press of the country, so that the agriculturist must indeed open his eyes and "look beyond his fields if he would hold his own." He must, if need be, leave his plow standing in the furrow and attend primary meetings and see that the men who are to represent him in the management of public affairs are real farmers—stalwarts, and not the half-breeds who sow and reap in the cities, and whose interest in rural life consists in raising a few potatoes or chickens. These counterfeiters, about election times, scatter hay seed in their hair and attempt to talk agriculture, and by their actions have, I fear, brought the genuine farmers into disrepute, since no one now thinks of looking among them for men qualified to fill the high places in the State.

I am writing more than I intended, but the snow is deep around us, no outside work can be done, and so I let my pen run on. You will be pleased to learn that the farmers of this section now seem to be better satisfied with the situation than at any time since the war. The fruit and truck crops have generally been good, and for the most part have brought fair prices. From present indications the

sweet potato is likely to become one of the leading products of this county. I can see no reason why this excellent vegetable may not be exported. If introduced in good form to the markets of Europe, the demand for it would soon equal that for American apples.

Our corn crop was above the average. Most of mine, I regret to say, is yet in the shock. This may not speak well for me as a farmer, but in this vicinity it is now impossible to keep or to obtain farm hands after the opening of the oyster season. The corn was late and not in condition to gather before the laborers abandoned the fields for the oyster houses. I did succeed in having a few hundred bushels husked by women in the mild days of November, but the bulk of the crop is yet in the field, and to-day the shocks are black with crows—working havoc with bill and claw.

A word in conclusion about this oyster interest, for which there is more said and done every day by the papers and politicians than for the whole farming and tax-paying people of the State. An expensive navy is provided for its protection, and which will soon be strengthened by the addition of two steam cruisers. I have not seen a report of the Comptroller, but unless we are deriving a revenue from the oyster beds in the Chesapeake, why continue this expensive machinery for their preservation? It seems to me that the sooner the bottom of the bay is scraped and raked bare of oysters the better it will be for the thousands of poor land owners who are riparian proprietors, and who could then profitably utilize their property for oyster planting. The people who live on or near our extensive shore lines know that oysters will never become permanently scarce in waters so favorable for their production as ours. Every acre we own under the water can be made to yield hundreds of bushels annually. But they will not be systematically cultivated while they can be so cheaply obtained in the public waters of the bay.

And now I will say good-bye to you. I began with wine and have finished with oysters,—both good things—though it is generally better to discuss them in the reverse order.

Very truly yours, L. O.

Anne Arundel County, Md., Jan. 1883.

What Tobacco to Plant.

An old and successful Virginia planter, who has given much thought and study to the tobacco question in all its phases, writes the following to the *Lynchburg News*:

There is a lesson to be learned, if our Virginia planters will heed and apply its teaching. The increased production of Burley tobacco has brought down prices, while diminished production of dark export tobacco operates to advance "old styles." So that we now see the latter advancing, while the former is retrograding in price. There will be less experimenting with the Burley in Virginia this year. First, because it has been pretty well demonstrated that first-class white stock cannot be produced, except on rich, dark limestone soil—such as we haven't got—and in the next place, we've learned that "mongrel styles" of Burley don't pay.

We will do well to take this "cue to our true interests," and plant some of the old types on suitable soil, thoroughly prepared, liberally fertilized, well cultivated, and properly cured and housed; for then the product will scarcely fail to remunerate us handsomely. Experience teaches that it is important that we plant a variety similar to the dark, rich, waxy grades, on soil adapted thereto, prime high and top low—not exceeding nine leaves—and then we may count on a crop of good "Old Virginia Shipping," that we will be proud to exhibit, and prouder still when the account of sales is rendered.

A bright day has dawned upon the old types, for the demand exceeds the supply,

and when this is true of any commodity prices always advance. But it were well to remember that the demand is exacting as to quality, and only for strictly good types are high prices paid. Nondescript and mongrels of every sort are at a heavy discount because of over-supply, for production in these types has never yet overtaken the demand. Virginia and North Carolina produce the best of these types, and we can profitably extend productions thereof on thousands of unoccupied acres of gray soil.

The outlook for all good stock likely to be produced during the year 1883 in Virginia and North Carolina is such as to give great encouragement to the tobacco planters in these States. The "tide in our affairs" has come; let us be prepared to take it at "the flood." Meantime, by making our farms self-sustaining—raising our domestic supplies—and then planting small crops of tobacco and tending them well, we may make the tobacco crop what it ought to be, and without which it can scarcely ever be, a sure money crop.

There's money, aye big money, in growing good tobacco of the types wanted, and don't you forget it!

Seed Corn.

Now, while seed-time is far distant, farmers should examine their seed-corn.

Last season was cold and late, and much corn that was planted failed to germinate by reason of the cold, damp soil, while that which managed to start grew but slowly and sickly, and was long in maturing, so that when cold weather came on all was more or less soft, and the autumn being cool it hardened but slowly.

Much was entirely ruined for seed by the early frosts, and nearly all has since had its vitality destroyed by the cold snap in early December which froze the but partly dried germs.

Those farmers who, early in the fall, fearing that there would be but little corn suitable for seed, gathered their seed-ears from fields uninjured by the frosts and hung them in airy drying places, may be pretty certain that they will experience no inconvenience from their seed not germinating; but still it may be best to test its vitality, and for doing so there is no time like the present.

A good method is to select a hundred kernels indiscriminately from your seed-ears and place them between two woolen cloths, which must be kept damp and in a place of 70 degrees, Fahrenheit, or in the ordinary temperature of a living room in winter; or the kernels may be placed in a glass bottle and covered with water, and hung in the window or near the fire; or if convenient place the kernels in a shallow box of earth.

In a few days, if the seeds are good, the sprouts will begin bursting their integuments, and then the germinated kernels can be counted and the per cent. that will develop is readily ascertained, and plans made accordingly. It is surprising what a small number of kernels have vitality the present season.

The majority of farmers select their seed-ears when husking, as in this manner they obtain the best and most productive ears; but this year such farmers have performed a losing labor.

Those farmers who examined their corn during the time that the mercury fell so low in December, noticed it looked dark, as though it had been cooked, and on breaking the covering found the sprouts frozen. Complaints of this nature come from all parts of the country.

Such corn, of course, will never germinate, and it will be necessary to obtain old corn for seed or produce no corn. There is but little old corn in the country, and if any can be found every farmer should obtain enough of it for seed. Probably a good price will

*This is in reference to a remark of Dr. Pollard, who had tried some of our correspondent's wines. He reported that "a friend who had called to see me recently, assured me this wine was worthy of French cellars."—Eds.

be asked for it, but it is better to pay a good price for good seed, than a poor price for poor seed.

New corn is bringing a low price at present, as much of it is souring in the cribs and dealers are loth to take it, but probably before another summer it will touch a high price. Old corn is sound and reliable, and prices paid for it seem fancy, though not in reality so, as it is much superior to the new.

Farmers' time and labor are not pressing us at present, and we can better afford to give a little attention to our seed now, and be sure of a good crop, than to labor all the spring and find our seed refusing to start, and be obliged to hunt up some old corn, if any can be had, and plant all our fields over again right in the busiest season.—*Cor. Prairie Farmer.*

The Farmers' Convention of Montgomery County, Md.

The eleventh annual convention of the farmers of Montgomery, met at the Lyceum Hall, at Sandy Spring, on January 16th. The increasing appreciation of these gatherings was manifested by the large number of practical and intelligent men that crowded the building and by interest in the various subjects brought before the convention. The officers were Henry C. Hallowell, President; Chas. Abert, Wm. W. Moore, Geo. Bonifant, Richard Waters, Vice-Presidents; and Chas. F. Kirk and Allan Farquhar, Secretaries.

The President spoke of the benefit derived from these assemblages of people engaged in kindred pursuits by the interchange of ideas and the exchange of experiences. He gave instances of the interest which science is taking in the pursuit and advancement of agriculture. He stated that in England Sir J. B. Lawes, with Dr. Gilbert, has been experimenting for forty years on fertilizers, crops, stock, etc., and in order that the good may not stop with his death, has set apart from his private fortune half a million for the continuance of the investigation. Mr. H. particularly called attention to a matter which is awakening interest in Maryland, as elsewhere in the United States. That is the imperative need of taking care of forests. To the destruction of the trees in the old world he attributed the disastrous floods which have spread ruin and distress over so large a part of territory in Italy, Austria, France and Germany. While the forests remain the loose loam sometimes two feet deep holds the rainfall until it may be slowly carried off by the streams. When the land has been stripped of the trees the rainfall is carried off directly, and torrents, destruction and distress follow in the train. There are alternations of floods and drouths.

SHEEP.—Asa M. Stabler, of the committee on obtaining a law to protect sheep from dogs, reported that the committee had been unable to have the law passed by the Legislature. He thought the farmers were losing large sums of money annually by the non-protection of sheep. Wm. H. Farquhar thought it might be effective to write a letter to candidates for the Legislature just before election to ascertain their views on this subject. "Hog thistle," which is a standing joke in the convention, as well as a standing nuisance in the fields, came up for discussion. As usual, there were a number of interesting and humorous experiences recited concerning the plant. It appears that the best known remedy for hog thistle is to cut it frequently, keep cutting until it disappears. Allen Bowie Davis also submitted a letter on the same subject, advising the use of a few drops of oil of vitriol on the roots.

ENSILAGE, ETC.—The next question was the most interesting one of ensilage, on which there appeared to be but one opinion from those who had tried the plan. R. F. Roberts, of Fairfax, Va., who had been using ensilage three years, said he had put away three hun-

dred tons last year, was feeding from fifty to sixty cows, and could pronounce it a decided success, but thought corn was better than rye to put in the silo. He had heard no complaint on account of flavor, and thought it a decided advantage to dry feed. Phillip T. Stabler, George L. Stabler, Charles Stabler, Llewellyn Massey and others endorsed it very highly, and Edward P. Thomas presented a special report in which it was stated that five new silos had been built in the county during the past year.

Samuel Hopkins thought flaxseed meal was excellent for fattening cattle in winter, and Robert F. Roberts, who had fed cottonseed meal for two years, but never separately, thought it kept cattle in condition, and improved both the quality and quantity of milk.

Barbed wire, in the experience of Charles F. Kirk, Wm. W. Moore and others, is the cheapest and best material for fencing.

On the question of whether self-binders had proved a success there was no voice in the negative, and they were, therefore, pronounced satisfactory. Col. Dorsey and others spoke most favorably of binders in general.

John Smith, of the committee on Use of Ground Limestone, reported that he had tried some of the stone, but had failed to find any results from its use.

A report was presented by Mr. Allan Farquhar on the weighing of hay in Washington, and Messrs Benjamin H. Miller, Allan Farquhar and Colonel Dorsey were appointed a committee to look into the matter and report at the next convention.

Abstracts of the minutes of the Farmers' Clubs were read. Wm. H. Farquhar gave the summary for the Senior Club as follows:

"It is just ten years since this convention was organized. Ten years produce great changes, and in scarcely anything more than in farms, farmers and farming. We used to be considered the slowest of the slow, but how is it now? In narrating the proceedings of our venerable club I ought to be able to tell you of something you did not know before; but of that you must be the judge. In profiting by the lessons we received in listening to others much depends on the spirit of the listener. Let there be no prejudice from the very mistaken notion held by some, that advancing years produce decline in judgment.

"The first sentence that struck me in looking over the proceedings of our club during the past year, is in these words: The number visited have good taste, most excellent judgment and great energy; to these are united close personal attention to everything. It is worth while to notice these qualities; is anything more needed to make a first-class farmer? The use of barbed-wire fencing gave rise to considerable discussion. In reply to the inquiry whether four or five wires are required, all say, five, though in voting that way several desired it to be understood that they did not approve of the fence at all. "An inquiry as to the causes which render some beef tender, and other of like age and fatness tough, was a puzzle that failed in getting an answer.

"A plan was suggested to get an ice pond by digging a pond 24 yards square and 18 inches deep, and supplying it with water from a well, by a pump and wind mill.

"Some members looked with interest at a slop barrel sunk in the ground till the top was level with the surface, thus being secured from freezing.

"Rye is being more frequently mentioned as a crop, principally for soiling.

"Our farmers (particularly the younger ones) are making money faster than their fathers, principally by dairy-work, selling cream, etc. Hence ice has acquired new value, particularly with those who use the Cooley creamer.

"The Jersey is still the favorite breed of the dairymen, but a strong drift toward the short horn is setting in.

"The army worm visited a few farms in our neighborhood, but the damages last year were not serious.

"Gardens generally were abundant in vegetables excepting cabbage, from which came a loss to many persons, more serious than from the army worm.

"Fish ponds have been made on some of our farms, in which the carp have attained a large size.

CROP SUMMARY OF SENIOR CLUB.

	Acres.	Average per Acre.
Wheat.....	352	26 bus.
Corn.....	263	11 1/2 brls.
Oats.....	23	20 bus.
Hay.....	422	14 tons.
Potatoes.....	58	106 bus.

"Eleven members report 30,258 pounds of pork; three members report 69 pounds of wool; one member reports 50 tons of ensilage from three acres; one member reports 1,150 gallons cream sold and 800 pounds of butter."

Arthur Stabler read the minutes of the Enterprise Club:

The Enterprise Club has been in actual organization since the year 1885; we began with fifteen members and now number seventeen. We have never lost by death or resignation.

Notwithstanding the fact that all but four of our members are able to view the home or homes of some of the others, they are, altogether, obliged to travel from 100 miles to 250 miles in attending each meeting.

We frequently notice that in disagreeable weather we have the largest attendance.

While all of our members farm in the regular way, they also carry on large dairies, deal extensively in live stock, manufacture large quantities of pure bone and other fertilizers, butcher hundreds of fat cattle, have extensive and fruitful peach orchards and raise large crops of potatoes.

During the past year our crops have been remarkably good, and the acreage of wheat now growing larger than ever before. All of our members are permanently improving their farms by the free use of lime, phosphates and barn-yard manure.

The feeding of ensilage is no longer an experiment, having been successfully practiced for the third year.

Barbed wire for fencing is growing in favor.

Can you make a good veal of a calf raised by hand? Not if it is an Alderney.

A pair of good old horses of 22 and 23 years were at work at Oak Hill, in fine condition, hauling out lime.

It was thought that locusts posts are from two and a half to five times more durable than white oak.

It will pay a farmer better to spread wheat straw on his land than to sell it for twenty five cents per cwt.

Barbed-wire fence costs 1 cent per foot for each wire.

July and August is the best time to cut timber for fence posts.

At Highland we found a large force at work digging a crop of over 3,000 bushels of potatoes from eighteen acres.

Rye straw or fodder roofs are thought to be best for ice houses.

High feeding is not thought to be the cause of cows losing their calves.

Thimble-skein wagons do very well for farm work, but the iron axle is better for hauling on the road.

CROP SUMMARY OF ENTERPRISE CLUB.

	Acres.	Average per Acre.
Wheat.....	352	26 2-10 bus.
Corn.....	513	8 1/2 brls.
Oats.....	48	20 1/2 bus.
Hay.....	530	14 tons.
Potatoes.....	187 1/2	185 bus.
Rye.....	49 1/2	35 1-6 bus.
Hogs.....	223 in No.	168 1/2 lbs.

One member sold 300 fine pigs; fifteen members fattened and sold 124 cattle at an average of \$48.62 per head; three members report sales of dairy products from 54 cows, amounting to \$4,605.

Robert H. Miller reported for the Montgomery Club. The minutes of our meetings show that:

An old orchard had been very much injured by trimming.

Forty inches is found to be about the right height for a barbed-wire fence.

A gallon of milk is worth from 3 to 4 cts. to feed to hogs.

Yellow corn is thought to yield better than white in a series of years.

Mammoth, Pearl and Peerless potatoes were recommended for late planting.

The proper place to plant plum and damson trees is the poultry yard, as the chickens will destroy the curculio.

A remarkably thrifty young apple was planted in poor ground, which was improved as the tree grew.

In one of our walks our attention was called to a narrow strip of dark green clover in adjoining field, where lime had been spread.

Ground limestone is reported upon favorably so far.

Five of our members have self-binders.

CROP SUMMARY OF MONTGOMERY CLUB.

	Acres.	Average per Acre.
Wheat.....	559	25 7-10 bus.
Corn.....	363	8 1/2 brls.
Oats.....	41	18 1/2 bus.
Hay.....	325	1 3-10 tons.
Potatoes.....	105	101 3-10 tons.
Rye.....	71	32 bus.

Eleven members report raising 36,950 pounds of pork; six members sold 96 fine pigs; four members report \$578 profits on sheep; four members sold beef cattle to the amount of \$1,897; one member sold 2055 gallons of cream and 3055 gallons of milk and 1000 pounds of butter; one member reports selling \$1,375 worth of cream; six members report 14,011 pounds of butter made.

ANSWERS TO QUESTIONS.

1. Will it pay farmers to erect windmills? Yes.
2. Is the Percheron horse suited to our use for this section? Yes.
3. Will the sale of Chicago dressed beef affect the fattening of cattle in Montgomery? No.
4. How shall surplus corn be used? Some advised buying more cattle or hogs, but a majority thought that for this one year it would be better to sell it.
5. Will it pay to lime a second time within 6 or 8 years? Yes.
6. Can our farms be made permanently rich without the aid of barnyard manure? No.

CHICAGO DRESSED BEEF.—The question as to whether the Chicago beef now sold in Baltimore and Washington would affect the raising of beef cattle in Montgomery county was unanimously answered in the negative, on the ground that first class beef would always be in demand. Mr. Edward Gilpin, said he found the whole matter of competition was in freight rates. When the Chicago beef was first introduced in Baltimore, a car of dressed beef, holding thirty-five carcasses, was run through at the same rate as live-stock, \$125 per car; but the railroad saw its mistake, and had now advanced to \$220 per car for dressed beef. Messrs. Asa M. Stabler, Mr. Aquar, of Prince George's county; H. C. Hallowell, F. Pae and others spoke on the question, the latter being of the opinion it was a question affecting the now too great profits of the butchers, rather than the stock raisers, of Montgomery county. Mr. Aquar stated that the first grade of beef shipped from the West went to foreign markets, the second grade came East on hoof, and the third grade dressed. It was claimed the dressed beef was Texas or Cherokee cattle, which looked nice, but was of inferior grade.

At the noon recess a bountiful dinner, spread in the schoolhouse near by, was enjoyed by all. A resolution of thanks was afterwards tendered the ladies' Committee on Lunch by the convention.

Live Stock.

Winter Care of Stock.

The January meeting of the Deer Creek Farmers' Club was held at the residence of S. B. and Geo. E. Silver, when the subject for discussion was the "Winter Care of Stock," and we give the report of our friends of the *Agis*:

Elias B. Silver said stock should be regularly fed and well taken care of, both as a matter of profit and pride. One way is to stable them, feeding rough food. They should not be too closely housed and should have ample room for exercise and for rubbing themselves during the day, with free access to water. Another method is to give them all the rough feed they will eat in the field. Shelter should be provided for stormy weather. Sheep are wintered more easily than other stock. They should have shelter from storms, but not be kept in close quarters and have exercise and plenty of water every day. Horses should have grain with their hay. It gives them good coats and keeps them in good condition.

Benjamin Silver, Jr., said he is wintering cattle on rough food, with a view of pasturing them in the spring. He believed it to be a good plan to feed in the field. If cattle are kept up the stables should be open and well ventilated. Cattle can be checked in improvement by being stabled too closely. If cattle are stall-fed they should be fed at regular intervals three times a day, as much as they will eat clean. It is not well to give horses much hay. Grain keeps their coats sleek, and good currying is equal to feed. Sheep and all other animals should have grain in winter. If they get behind in winter they lose too much time recovering in the spring.

John Moores said the first thing to do toward wintering stock is to put your fodder and hay up in nice order. Next to have a good clean place in which to feed, so that cattle will not waste it, and each one get its due share. He thought feeding in the field is better than in the barn yard, for the reason last named. It is important to begin feeding early in the morning, in order that the times of feeding may be more equally distributed during the day. You should be kind and gentle to stock. A rough, noisy man is not fit to handle stock. A man should even be taught to walk around a bullock in the barn-yard, and not drive it out of his way. Feeding cattle in the field is a good way, especially in the early part of winter. You should also have a straw rick for them in the field. Hogs should be kept warm and dry and should have shelter where they can house themselves. They will do better sleeping on the ground than on boards. Mr. Moores was in favor of feeding cows moderately every day, summer and winter. If cows are fed all the strong food they will eat they will not give so much milk or make so much butter. A change of feed is desirable. The stables should be cleaned out in the morning, when stock is turned out. The barn and feed room should be swept out every day and the litter given to out cattle, which will eat much of it.

George E. Silver thought farmers should remember that it is easier to maintain flesh than to put it there. Horses and cattle kept in good condition during the winter immediately begin to improve in the spring. Different kinds of stock require different treatment. Young stock should be housed and grained and have plenty of nourishing food. Stock of mature age will do better with rougher treatment. Where cattle are not stall-fed and you have plenty of rough provender, it is a good way to feed them in the field if the weather is not too rough. In the field they cannot interfere with each other and have plenty of fresh air and free access to water, which stall-fed cattle are not al-

lowed to have but once or twice a day. They should be fed regularly early in the morning and in the middle of the day, so as to give them all the afternoon in which to pick at their food. It pays to feed grain to cattle through the winter, but if you cannot do this a little grain fed to them in the spring will be profitable. Sheep require looking after every day, especially in the lambing season. They should be kept in a dry place and need a great deal of fresh water in the winter time.

R. Harris Archer said Mr. Moores had struck the secret when he said hay and fodder should be saved in good condition, but he would add wheat straw, which he regarded as an excellent feed, if cut a little green. He feeds chaff as well as straw. Farmers waste a great deal of hay in feeding it to horses. They should not have too much hay. Stock can be kept too closely confined, especially if feeding a little meal, intending to turn them on grass in the spring. It takes more fodder if they are allowed to run out, at times, but a steer will eat more and look fuller than when kept up all the time. Stock should not be stinted. Everything should be fed on corn, from chickens up. Fat stock will not eat as much as poor stock and it is more creditable to the farmer to have his stock looking well. One advantage of keeping cattle up all the time is that you get the manure where you want it.

Mr. Lochary made an enquiry about the use of salt. Mr. Janney thought cattle should have rock salt at any time; it improves their appetite. Mr. Archer and Mr. Benj. Silver, Jr., did not think salt absolutely necessary to cattle.

Mr. Moores regarded it as very advantageous to cattle, and Mr. Rogers thought it should be placed where they could get it at will.

R. John Rogers was of the opinion that stock can be wintered better in the stable-yard than anywhere else, but shelter must be provided for them, and racks where the fodder can be kept dry. Cattle will eat but little wet fodder. By feeding in the yard you also get the manure. If fed on grain they must be stabled. On small farms it is not always convenient to feed cattle in the field. Horses are generally fed more hay than is necessary, and are often injured thereby. Broken-winded horses may be improved by taking them off of hay and giving them fodder or straw. Besides, feeding so much hay is a waste. It is important to keep hogs warm and dry. They will winter better and take less feed.

Johns H. Janney said the proper winter care of stock depended upon what a farmer was attempting to do. If you fatten in the stable, to sell early in the spring, you should feed one way; if you propose to fatten on grass another way will be most profitable. His experience is that it does not pay to feed cattle in stables through the winter to sell early in the spring. The same winter he tried this he wintered 30 head in the barn-yard and field, fattening them on grass. He gave them no corn, and the profit per head was greater. Cows to be profitable must be well fed and well housed. They should be fed and milked regularly, and should have some ensilage or roots cut up once a day and mixed with bran. It will increase the milk and keep the cows in health. Turnips are good for cows and sheep. Raising young stock is an important matter. Colts should be wintered warm, have some oats every day, and be allowed to exercise daily when the weather is suitable. Oats produce bone and muscle and are better for all horses than corn; the latter is too heating. Currying horses is equal to one-fourth the feed. We feed horses too much grain. Cut wheat straw, bran and warm water will give better results than the present system.

Thomas Lochary believed in the first place, that a man should sell off every animal that

is not thrifty before winter commences, or knock it in the head. If an animal won't thrive on grass it will be wintered at a loss. A farmer should pay attention to his stock himself or see to it. Raising young stock is only profitable when you can get them fit for market at an early age. Unless they are well wintered you cannot do that.

Thomas A. Hays said horses are often fed too much hay. A change of feed is necessary for them. It pays well to raise oats for horses. Many farmers regard oats as a non-paying crop. The reason is—they fertilize for wheat and corn and expect to raise oats without fertilizer. He always puts a little fertilizer on oats and it pays well. We ought to try and have roots for cows. In the morning feeds bran and meal, and at night mixed a feed of sugar beets or ruta bagas with the bran and meal. He found that the cream is twice as thick when feeding sugar beets as when feeding ruta bagas. Steers when fed grain should have salt twice a week. Cattle and hogs should have a little sulphur occasionally. Ground oats are good for young pigs. Mr. Hays feeds one-fourth bran with meal, and gives with the feed one-half pound to a pound of cotton seed meal per day, with good results. Stock should have plenty of water, and when not fed high should remain out all day. He objected to feeding in the field, especially in mucky weather. He always cuts his fodder, and agreed with Mr. Moores as to the importance of saving crops in good condition. Mixes flaxseed meal and middlings for calves, but likes cotton seed meal better for fattening. He lets his cattle out only when cleaning the stables and they get water only once a day. In the morning feeds meal and fodder; in the middle of the day a basket full of chaff and meal on it, and at night meal and fodder. Gives about three gallons of bran and meal a day, with cotton seed meal. He cooks food for hogs, giving it a little warm, but did not believe it would pay to cook it for cattle.

Edward P. Moores thought nothing paid better than proper care and feeding of stock. Cattle for grazing will do better in the field than in the yard, in moderate weather. Unless ground is covered with snow there is always something in the field they can pick up, and they should also have a straw rick to go to. He did not regard cows as profitable stock, except for tenants and people who let them run on the commons. Horses for light work should have grain and a little hay, but horses worked in a team should have plenty of hay.

Wm. Munnikhuyzen, the President, was in favor of feeding cattle in the field. Ten head of cattle now on his place have never been in the barn yard but one day and are in as good condition as the cattle that are stabled and fed on meal. The field cattle get only fodder. Young cattle should be housed, particularly the first winter. Keeping hogs warm and dry is fully one-half the feed. All animals are better with exercise. Too much hay is an injury to horses and many farmers also feed too much grain.

Adjourned to meet at Mr. Munnikhuyzen's, February 24th. Subject: Farming Implements and Machinery.

Cruelty to Animals.

Messrs. Editors American Farmer:

Kindness that injures is as bad as cruelty. In a former paper I referred to two instances in the management of the horse that greatly injured that animal.

1. Burning out that imaginary disease the lampas, which thus destroyed the power of grazing.

2. Shoeing, and thereby maiming and crippling the poor animal. I gave the experience of a country physician who rode the same animal eight years, in his practice without shoeing, and also that of a hunter

who would run his unshod horse at full speed on glossy ice, which not one dared to do with the shod horse. I give another testimonial. H. Cook, in the *Farming World*, says:

"I used to have my horses shod, but often it was a positive injury, when the snow would ball or cake up and the mud was deep. I often had lame horses. I have not had a horse shod for the last three years and have had no lame horses and have been on the roads when icy with no other trouble. A horse is more sure footed without than with shoes. Such is my experience and I hope to hear from others."

A correspondent (anonymous) in *The Farmer's Review* criticises my paper by saying that the horse would injure and tear his feet, if not shod. He might do so at first, but if a rasp was freely used, there would be but little trouble. The feet of the horse would soon be toughened.

When a boy and going barefoot, at first the feet were very tender, but in a few days were so tough as not to cause a thought.

The feet of Selkirk when found on the Island of Juan Fernandez, were so hardened by use that he could not get a shoe on.

3. Another great cruelty is the paring away and removing the frog or heel of the horse's foot. This tough elastic membrane is just as necessary for that animal as is the heel of the biped. Could we ever walk naturally without heels?

4. Blinds are most absurd and cruel; for by their use the sight of the horse is covered up. Look at "the argumentum ad hominem" again. If a board was tied before our eyes it would be just dreadful, and our lives would be tormented and our usefulness greatly diminished. So of the horse.

Will not thoughtful, kindly men and women set the fashion of treating the noble horse with real kindness?

G. F. NEEDHAM.

Washington, D. C.

Starting a Pure-Bred Herd or Flock.

The cheapest and quickest way in which a farmer of limited means can secure a supply of improved stock is to persistently use well-bred males on the best females of common cross-bred stock he can afford to purchase. The cost of a herd or flock of the more popular breeds is so much that the average farmer cannot afford to purchase such. It is fortunate that high grades—animals of seven-eighths or more "blood"—are often nearly or quite as good for all practical purposes as those technically pure bred. This being true, there is little room for arguing that a farmer may not secure good stock. The use of well-bred males for a few years will give him good stock, if he use good judgment in selection and give his stock good care.

But a herd or flock of pure-bred animals may be built up much sooner than is usually thought, given only a very small foundation. Of course there is an element of uncertainty in all breeding. A mare, a cow, ewe, or sow may fail to breed, or may persistently produce male offspring; but, with the average results, the progeny of even one female will soon become a large number. Surely, there is no good reason why a farmer may not have a herd of pure-bred hogs if he wish. Let him purchase a sow in pig now, and by the autumn of 1884 he may have as many young brood sows as most farmers care for. In five years the progeny of one ewe may become a good-sized flock.

With larger animals the rate of increase is slower; but from a cow in calf, purchased this spring, there may readily grow a herd of twenty females, old and young, in ten years. A good brood mare, in like time, may be the ancestor of at least all the horse stock needed on the average-sized farm.

This is not "mere theory." There are

now large herds of fine stock entirely descended from two or three cows purchased not many years ago. Probably many readers will recall cases where a brood-mare belonging to a neighboring farmer "has made him as much money as all the rest of his farming," to quote a saying we have frequently heard.

To a young man ten or fifteen years seems a long time, and many of their neglect efforts to improve their stock because the process seems a slow one. We are laboring to hasten the time when "improved stock" shall be "common." The number of farmers who see that it pays them to use nothing but well-bred males is rapidly increasing. A large percentage of this number can well afford, and would find it to their profit, to also purchase at least a few well-bred females.

The successful fine stock breeders need not fear that such advice is calculated to destroy their business. There will always be room for choice in the best-bred stock. The skillful breeder will always find a demand for his superior animals; quite probably a better rather than a worse demand on account of the enlarged number of farmers engaged in breeding "pure-bred" stock.

—*Breeders' Gazette.*

The Trotting Horse.

Prof. Brewer, of Yale, who is the director of the Connecticut Experiment Station, is doing, according to the *New England Farmer*, a work for the Connecticut farmers similar to that Prof. Agassiz did in Massachusetts. At a recent meeting of the State Board of Agriculture he read a paper on the Trotting Horse. The *Farmer* says:

"He has a wonderful power for looking back into the years and centuries which have passed, and seeing what most others would overlook. His account of the growth, or rather the 'evolution' of the American trotting horse as we now have him, was the result of a vast amount of research into old records, old histories, and old newspapers, such as few men would have the taste, patience or ability for. He made our trotting horse, the horse that now carries our grain to the mill, our milk to the village, and our families to the church after his week of service at the plow or the mowing machine—a new creation, an animal born to meet certain wants which were never felt till within the past century. Our ancestors neither had him or wanted him.

"The horse was not domesticated till long after the ox, the sheep, the goat and the dog had become companions of man, and a long time the services of the horse were chiefly confined to the carrying of packs, and to purposes of war. The proud Knight in the days of heraldry, would have cut a comical figure rushing along on the back of a trotting horse. Imagine too, a warrior of the earlier days, clad in his heavy and clumsy coat of armor, jingling along with the up-and-down gait of a modern trotter. The very idea is absurd. It was not till our roads were so improved that light spring carriages could be used for pleasure driving, that there was any place for the trotting horse, and this was not till the present century.

"The speaker did not claim that there is even now a trotting horse, but only that we are beginning to make such a breed. The trotter has his origin more direct from the blood of horses that were long owned by European and Asiatic people, among which prominently stand the thoroughbred, himself descended from the Arabian, the Barb, the Turkish, and some add the Persian.

"The horse is one of the most plastic in his nature of any of our wonderful animals, adapting himself wonderfully to his surrounding, and to the uses to which he is put. In size, he varies from a little more than a hundred pounds to more than a ton, fifteen of some of the ponies being required to equal in weight one of the larger draught horses. The

trotter is strictly an American creation. The horse of Europe is still a war horse, and his breeding is carried on with this use in view, though among the nobility he is also used for purposes of ceremony. But in either case, he is a riding horse. The riding horse must have a variety of gaits both for his own comfort, and to relieve his rider, but the trot, except it be the dog trot, is not one of them. There is a sympathy between a horse and his rider which has been lost, or very much weakened by the adoption of the wheeled carriage. The Centaur was an imaginary creation, and yet it comes very near to representing the real oneness of the horse and rider.

"The Indians of Spanish America, who formerly captured the buffalo by the aid of dogs, were so changed by the adoption and domestication of the horse as to become the most difficult to subdue of any the white man has ever met. Fashion has had a great influence on the color and style of horses. Most of the European war horses have been white or grey. Numerous laws have been passed restricting the riding of horses to the favored few. In the 13th century, both Christians and Jews were forbidden to ride. A single horse team is now an unfashionable team, in England as well as in this country, to some extent, especially for going to church. The coach is the "State" carriage in England, and heavier horses are demanded now than formerly.

"In agriculture, the horse has never, till within the present century, taken any but a menial position, oxen being the principal farm team.

"Probably few at the present day can fully realize how very modern are our light spring buggies. The first wagon of the kind built in Rockville, made its appearance in 1828. In 1806, there were but two carriages of any kind upon wheels, in Danbury, and the first coach appeared on the streets of New York, but little more than a century ago.

"The first demand for trotters seems to have sprung up in Connecticut, where horses, advertised for sale in the newspapers sixty years ago, sometimes had it said of them that said horses "trot," or "can trot." A market for fast trotters was found among the wealthy planters in the West Indies, who, it seems, were acquiring a taste for this kind of sport. But the fast trotters of that period would hardly be reckoned as such at the present time. When the horse "Yankee" made a mile in one second less than three minutes, he astonished the world, as well as the unlucky man who had bet heavily that no horse could do it. It was some years later that "Toppallan" brought the record down to 2.40, and in 1843, Lady Suffolk lowered it to 2.38. Thirteen years later, in 1856, Flora Temple dropped it to 2.34, and in 1859, to 2.19. It then took seven years more to bring out a Dexter capable of reducing the fastest time record only 1/4 seconds, or to 2.18, and one year more to reach 2.17, then four years more to get off that quarter of a second, which was done by Goldsmith Maid. Eight years more of breeding brought out Rarus, who reduced the time in 1878 to 2.13. St. Julien, a year later, got off another half second, and Maud S., has taken off a few more, reducing the time to 2.10 and a fraction.

"Fifty years ago, nobody could have been made to believe for a moment, that a horse could ever trot inside of three minutes, but now it is confidently expected that one will yet make a mile in two minutes, for, said Prof. Brewer, we have not yet established a breed of trotters, but are only beginning to form such a breed. The sports started the breed, but the community has built it up. A new want has been felt, and a new fashion sprung up, and breeders are endeavoring to meet that want. In 1843, there were but two horses in America that could trot a mile in 2.30, while in 1881, there were over twelve hundred who could do it. What our trotter is, the American has made him. In England, a man would not know what a race meant without two or more horses to run for a prize. They have no records there. In this country, we have not been satisfied to beat our neighbor's horse, but have been trying to beat old "Father Time" himself.

Improving the Flock—A Practical Illustration.

J. K. Moreland in the *Breeder's Gazette* gives the following:

"Some five years since I had a neighbor who was, in some respects, a very worthy man and a good farmer; that is, he was as successful as any of his neighbors, was able to produce just as good crops, kept as good a dairy and had just as high a reputation for being a good farmer as had any of his neighbors. This farmer, like his neighbors, kept sheep, produced lambs for market and sold what wool was not needed for family use. Lambs and wool were the only sources of profit from the sheep kept on the farm. On this farm of eighty acres there were kept twenty ewes, and the clip of washed wool rarely exceeded sixty pounds. The ewes being hardy and vigorous usually produced more than one lamb per ewe; but the ewes being small, rarely dressing more than sixty pounds per head, the lambs themselves were not of the most profitable sort. The lambs were not of a kind that were in market early. They rarely commanded a higher price than \$8 per head, and my neighbor was often obliged to keep his lambs until the butchers wanted them before he could obtain a market for them.

"The profit from this flock, in an average season, may be briefly estimated as follows, viz.: sixty pounds wool at 30 cents per pound amount to \$18; twenty lambs worth \$3 per head amount to \$60; total amount, \$78—being an average of \$3.90 per ewe. I do not inquire into the cost of wintering or pasturing the flock, as that is beyond the scope of the present article. About this time, that is five years ago, I advised my friend to invest in a Cotswold ram. With two years' service of this ram he secured twenty half-bred ewe lambs and disposed of all his old sheep. He has since then used another pure-bred Cotswold ram upon the get of the first ram. He has now a flock of twenty grade Cotswold ewes, and to show the value of the improvement I have described I will give the value of the sales of wool and lambs for 1882. By the use of well-bred Cotswold rams upon the original flock its wool-bearing capacity has been so improved that the twenty ewes averaged eight pounds of washed, saleable wool per head. At 30 cents per pound this wool was worth \$24. The twenty ewes produced and reared twenty-four lambs; but for the illustration I will say that twenty lambs were sold at \$4.50 per head, amounting to \$90; total amount of cash received from the same number of lambs and fleeces sold from the improved flock as from the unimproved was \$118, or an average of \$5.90 per head. Now this is not an extraordinary profit from a small flock of sheep, and has probably been exceeded many times, and, in fact, I have done better myself. I do not give my neighbor's experience to illustrate the profit of keeping sheep, but rather to show the benefit to be derived from the use of well-bred rams. There is one item of this transaction that will also bear close inspection, and that is the permanent improvement of the flock from a butcher's standpoint. The fat animals of the unimproved flock were never brought to dress more than sixty pounds. Wethers of the improved flock have dressed 185 pounds, and the lambs are fit for market at least two weeks earlier than formerly. This adds much to the actual value of the flock, and the means adopted to improve the flock were simple and easily accessible to any flock owner. There are many flocks throughout the country that are like that of my friend—an investment of doubtful profit. The actual cash value of one of these flocks can be doubled by the use of a well-bred ram. These rams can be purchased from reliable breeders for from \$20 to \$30 each, and are worth very much more than the latter price for the service of twenty

ewes in a single season; and even if \$50 is considered a high price for an improved ram, farmers who invest in these rams can exchange with each other and thus divide the cost of improving their flocks. If an investment in a pure-bred ram, for the purpose of improving a flock of common sheep, is considered of doubtful character, one trial will settle the question at once and forever.

Sheep During 1882.

The year 1882 has, on the whole, proved a prosperous one for the keepers of sheep as well as for the general farmer. Sheep have been generally healthy; they yielded a fair clip of good wool, and the increase was unusually large, with comparatively few losses from any cause. The season afforded abundant pasturage all through, and the fall feed was never better in nearly every section affected by frost. It is true that the price of wool has not been what was hoped for and expected, and the same is true of the demand. Purchasers have not been as plenty or as anxious to buy as they have been in some seasons. But on a review of the year there is much to encourage and little to discourage those who keep sheep as steady business—as they raise grain and grass and other staple products in the pursuit of their regular business of farming and stock growing.

It is perhaps unnecessary to say anything to the experienced breeder of the manorial value of sheep, but men who are about embarking in the business, or who have conducted it with an eye mainly to the growth of wool and mutton, do not realize how much the sheep benefits the farm as a fertilizer of the soil, and an exterminator of the noxious weeds and briars that vex and annoy the farmer who keeps no sheep.—*Nat. Live-Stock Jour.*

Veterinary.

HORSE BLEEDING FROM THE NOSE.—Often occurs from various injuries to the mucous membrane of the nostrils, from hard pulling up hill, too light a collar, and from other causes especially if the animal be full of blood. In these cases the bleeding is from one nostril and in drops accompanied by sneezing. If the bleeding comes from the lungs it will be bright red and frothy and there will be a cough. If from the stomach, it will be black, clotted, sour and accompanied by retching.

Treatment: In simple cases tie the head up as high as possible, blow strong alum water from a tube at each inspiration and if obstinate plug the nostrils with pledgets of tow. Give internally one scruple of acetate of lead to be followed in half an hour with another if necessary. Inject well up in the nostrils a weak solution of muriatic tincture of iron.

If both nostrils are involved and the flow is continuous only one nostril must be stopped at a time, unless tracheotomy is performed, since the horse cannot breathe through the mouth.

ABORTION IN SHEEP.—Is very frequently caused by rough treatment by dogs, careless driving, hooking by cattle, bad fences, overfeeding in cold weather, and sudden changes of diet causing too free movements of the bowels. Stewart says: "It has been known to occur in consequence of, or after the heavy dressing of turnip or mangel land with superphosphate, the crop having been fed to ewes," but this is probably in consequence of the greater succulence of the roots so grown rather than to the direct action of the phosphate. The distension of the stomach with cold, watery food, so greatly reduces the temperature of abdominal viscera as to destroy the life of fetus, which is prematurely expelled.

Treatment should be chiefly preventive. Follow abortion with Epsom salts, half

ounce; laudanum, one drachm. The second day give of laudanum one drachm, powdered camphor half drachm, if needed. Dogs should be guarded against; breeding ewes should not be allowed to run with cattle; rock'ess driving and all disturbing causes avoided.—*U. S. Vet. Journal.*

Scratches.

Having seen inquiries in the papers for a remedy for this disease I thought I would give one which is an infallible cure, besides being so simple that any one can apply it. Wash the parts affected with a soft sponge and warm water until they are clean from sand or any other dirt that may have collected there, then take some hot (not red hot) wood ashes from the stove and throw them on the sore which being wet will cause them to stick. I think one application will be enough, unless the disease has become chronic, which should never be allowed while such a simple remedy as this is within the reach of every one.

JAMES HUNTER.

REINTRODUCTION OF DEVONS INTO HARTFORD COUNTY.—The *Agist* says Mr. Harry Wilson, of Bel Air, recently bought from Dillard & Graves, of Orange county, Va., a remarkably handsome registered Devon bull, which, though not two years old, weighs about 800 lbs. "Buckingham," as he is called, was sired by Pamunkey (13687), his dam tracing back to the celebrated Devon cow Nemophila (21397), bred by C. S. Wainwright, of Rhinebeck, New York. Buckingham is the only pure-bred registered Devon bull in the county. It is Mr. Wilson's intention to breed these beautiful and desirable cattle, which are believed by many to be unequalled as working oxen, while they are also valuable for beef and for milking purposes. The last herd of Devons in the county was one belonging to the late E. Stanley Rogers, of the Rocks of Deer Creek.

Poultry Yard.

Eggs.

I notice your correspondent from Montgomery county in your last issue, while he speaks quite encouragingly on poultry matters, admits a very bad record for his hens "mostly Brown Leghorns," which he says averaged less than 100 eggs each during the year. If his fowls are pure Leghorns and that is the best they can do there certainly is something wrong, for the common fowls ought to do better than that, and Leghorns that will not average 300 eggs each year I should not consider worth keeping. In some instances I have known the laying qualities of Leghorns to become quite inferior from continued in-breeding. Perhaps this may be the case with your correspondent's fowls. New blood should be introduced at least once in three years.

Another source of trouble which often leads one to think the egg laying qualities are inferior, is the hens get in the habit of egg eating. This is a vice Leghorns are very apt to indulge in if they are too closely confined, as they are a breed of active and busy habits, fond of hunting tidbits of food for themselves. In fact this is characteristic of all egg producing breeds.

In an article in this issue of the *FARMER* ("Poultry in Winter") the writer a practical farmer gives the average of Polands he has kept which shows a better per cent. than the Brown Leghorns in question, and it is an admitted fact that the Leghorns will lay more eggs in a year than any other breed. Care however has as much to do with egg production as the feed, and all breeds if they are properly housed and understandingly fed, will astonish those who have kept them in a hap hazard manner if they will try the proper means to replenish the egg basket.

E. O. N.

Poultry in Winter.

Farmers often complain that their poultry do not pay expenses in the winter time. From the way some farmers manage their poultry it is no wonder that they don't pay. If you make your hens roost on trees they will render little return; this is not the fault of the hens, but their keepers. If farmers want eggs they must get a good breed, give them comfortable quarters and suitable food. Hens may be called egg-making machines, and they will turn out just as many eggs in winter as in summer if they have proper care and feed. Eggs are worth twice as much in winter as in summer, so that it will pay to take good care of fowls. Some over-feed their poultry with corn, but they give no egg-shell material. Wheat is very good to start hens to lay. But to furnish the raw material for manufacturing egg-shells I have never found anything better than bones or oyster shells pounded fine. Farmers should give their hens mixed food, such as corn, oats, wheat, rye, buckwheat, etc. Thick sour milk, with wheat bran or boiled potatoes, fed warm, makes the very best of feed in the morning for laying hens in winter. I have kept a greater variety of breeds of poultry than any farmer in my neighborhood, and I have found out by long experience that the pure, white-crested, Black Polish fowls have more good points than any other breed. In the year 1877 I had 25 hens, and they laid 4,575 eggs; in 1878 I had 25 head again; they laid 4,250. This year I had 15 hens, and they laid 2,625, or 175 eggs per hen. I also raised 80 young ones out of 85. The largest part of their feed was hull-less oats.—*Cor. N. Y. Sun.*

Close Competition.

In looking over the scores of the winning birds at the late poultry show in this city we remarked the unusual strong competition in several of the leading classes. In the Light Brahma class on fowls the total scores on the winning pairs were: 1st, 184; 2d, 183; 3d, 177; 4th, 176; whilst in same class on chicks even the 4th premium pair exhibited by W. M. Stirling, of Baltimore county scored 180 points. This indicates the unusual excellence of the birds on exhibition, as generally 4th premium birds do not score over 165 to 170 points to the pair. A bird that even scores 90 points out of the 100 is the general average of those winning first premiums. The same wonderful excellence of stock was found in the game class, the highest scoring games counted 186 points. Verily our Maryland breeders as exhibitors of fine stock are coming to the front. If they would advertise properly there is no reason why their enterprise and fame should not be a source of profit, for intending purchasers would as soon patronize our Maryland breeders as others, especially when they are certain they could not do better.

About Nest Eggs.

The farmer who resorts to stale or rotten eggs for use in the nests does himself more damage than may be supposed. One rotten egg in a basketful condemns the whole, and all the explanations possible will not convince buyers that the eggs are fresh after the discovery of a single bad one in the lot. Again another injury is done in a direction unlooked for, which is the filth and disease generated by the breakage of rotten eggs in the nests. Lice make their appearance in a few hours after the nests become filthy, and the cost and labor required to get rid of the pest after it gets a hold is more than ten times the value of the eggs used for such purpose, or rather, as such eggs are of no use at all, we might say that an amount expended in the purchase of a few glass eggs will not equal the expense necessary for ridding the farm of lice. Rotten eggs be-

come rotten in the shell as well as inside, and break easily. The breakage is always at a time when unexpected, and no time is devoted when busy elsewhere to cleaning. As vermin takes possession the hens leave the nests and lay outside, and labor and time is then wasted in hunting for eggs. Hens also lay fewer eggs when the conditions are unfavorable, and if a farmer expects, by refusing to pay three or four cents for a glass egg, that he makes a saving, we can assure him that for every cent so saved he loses ten by the use of rotten nest eggs. No systematic farmer will indulge in the use of such a costly contrivance, and it is only those who keep poultry for form's sake that resort to rotten eggs.

The injustice to dealers should be considered also, for their customers consider themselves cheated when they find a bad egg, and rotten ones will get to market if they are kept in the nests. As the dealers are compelled to trust to the honesty of the farmers in such matters, should they not be careful to use every precaution against sending to market anything from their farms that is bad or liable to deceive the purchasers.—*Farm and Garden.*

Eggs from Various Breeds.

A writer in the *Poultry Monthly* gives a list of the average weight and number of the eggs laid by the several breeds of fowls. Light Brahmas and Partridge Cochins, eggs seven to the pound, lay 130 per annum; Black, White and Buff Cochins, eight to the pound, lay 115 per annum; Plymouth Rocks, eight to the pound, lay 150 per annum; Houdans, seven to the pound, lay 140 per annum; La Fleche, seven to the pound, lay 130 per annum; Creve Coeurs, eight to the pound, lay 140 per annum; Black Spanish, seven to the pound, lay 150 per annum; Leghorns, eight to the pound, lay 160 per annum; Hamburgs, nine to the pound, lay 150 per annum; Dominiques, nine to the pound, lay 155 per annum; Game, nine to the pound, lay 130 per annum; Bantams, sixteen to the pound, lay 140 per annum.

Horticulture.

The Orchard and Fruit Garden—February.

In the southern portion of our own State, and Southward, pruning in the orchard can be performed during most of this month. We do not like to prune until hard freezing weather is over, as the wounds made by the removal of the limbs, when exposed soon after being made, to hard freezing weather, tends to produce more or less injury to the trees; such, at least, is the accepted belief amongst intelligent orchardists, and our own experience, extending over twenty odd years, warrants the advice to wait until the severest or greater part of winter is past.

Don't prune too much; far better too little, than too much. "Thinning out to let the sun and air in," will, or we prefer to say, may do for northern climates, or the virgin soils of the West, but not for us. The head should be formed before the tree arrives at bearing age, and if done with average good judgment, will need no "thinning out" afterwards, unless it should be that of "watersprouts" sometimes thrown out along the main limbs; but these should be removed in the first part of June, to prevent their being replaced with others of the same kind, more vigorous than the first. But what shall we cut if we are not to "thin out" the "lap"? Sometimes excessive weight of fruit will cause limbs to cross and chafe, sometimes even break or split limbs down; these should be neatly removed; and if large wounds are unavoidable they should be covered with grafting wax, paint or something to exclude air and wet, as soon as is practicable.

With the peach tree, in addition to the

above, the dead wood which annually appears in bearing trees, should be removed. Cut all the "black knots" off of plum trees and burn them. Cut out the old wood of currants and gooseberries, nicely and carefully; fruit will be better and larger. Cut, tie in bundles, label correctly, and bury in the ground six or eight inches deep, grafts of such kinds as you wish to use when spring arrives.

There are few places that have fruit trees for even family use of apple, pear, cherry and plum, that do not have from one to half a dozen trees, of kinds that are unsuited to their situations, and are of no value; this is not hard to remedy. Collect grafts of such kinds as you know are desirable, graft a fourth or half of the tops of such trees, at a time; let them rest a year or so, then finish up the balance of the top. There is much in this to interest you, first you will have some anxiety to know how the grafts will "take;" next, it will interest you to see them grow, to be sure that they escape injury by the windstorms of summer; and, finally, to reap the fruits of your labor.

THE NEWER FRUITS.

Among the newer winter apples that have come into bearing in our specimen orchard, we find the Cowan's Seedling, Park, McNash and Ella Park, to fill the bill quite satisfactorily. The Cowan's Seedling is red, very prolific, not as large as the Winesap, but a much better keeper and of a great deal better quality. McNash is on the greening order, tree a beautiful grower; comes into bearing young, is quite prolific; fruit good size, excellent keeper, and of first quality. Park is large, streaked with two shades of red, good keeper and good flavor. Ella Park very large, deep even red all over, fair quality, and keeps as long as you want it. The "Horn" apple disappointed us very much; coming from the extreme South as a keeping kind, we had our expectations up. It proves just about as valuable here as the Baldwin or Northern Spy.

If only the "Yates" was four times as large as it is! We have years ago eaten Spitzenburgs and Spys, that provoked the boyish wish that our throat was longer, so that we might enjoy to a longer extent their captivating excellence; yes, we well remember it all, and cheerfully acknowledged them very kings in fruit of fine flavor; but, we have lived to eat well ripened specimens of the little Yates, an older boy now by a score of years, still a little more of that exquisitely fine "Yates flavor" for our palate would make us none the less happy. In brief, we regard the Yates the equal of any apple in America in fruit of high, delicate flavor, but it is too small. Thus we might write out the merits and demerits of a score or more of others that we have tried and are still trying, but our space will not permit at this time.

If one year's fruiting of the "Bassett's American" plum gives us anything near a correct idea of its value, we will have a dozen trees to re-graft in the near future. It is nearly a freestone, and that is the only thing about it that is in any way desirable; small, dull, ugly color—"a bluish, dirty, reddish color," was the answer a boy gave us, when we gave him one and asked "what color it is?" With pulp as rough as a "nutmeg grater." Such is our description of a fruit that came from amongst the educated tastes of New Jersey pomologists, with loudly heralded praises. We sincerely hope we may have cause to change it for the better (?) on further trial.

Which is the best red raspberry? Ah! echo answers which? The "Superb" and the "Hansell" have both been groomed and trained with greatest care by two of "Jersey's" most ambitious sons. They are both on the track, made popular by a lavish use of printer's ink; the latter, owing to the keen observation of its driver, was wonder-

fully rushed in the start, and got the lead of its competition; but it is claimed by the backers of "Superb," that its best speed will only be developed on the "Home Stretch," where "Hansell" will fall. "Popular favor" is the stake, and while by keeping a "sharp ear" you can occasionally hear the success of a few "old fogies," who don't believe in so much "thunder," the race goes on and "Jersey" stands at the head. To our readers we can only say, be patient, be calm, don't bet much, because there are several "dark horses" in training for the raspberry race, and it will soon be proclaimed that neither of the above named are the best.

Who says the "James Vick" strawberry is the same as Captain Jack? For shame!! Keep your tongue and hide your jealousy. Don't be talking that kind of nonsense openly, and then secretly order five thousand plants of "James Vick." They say he did it. Now who struck "Billy Patterson"?

Is the "Golden Pocklington" grape free from foxiness of flavor? "No!" says Chas. A. Green, of Rochester, New York, and the "No," is taken up and seconded by all who have eaten of it. "Nearly or quite as 'foxy' as Concord" says a rattle brained fellow who can't hide the truth. "Niagara" too is said to be somewhat tainted with the familiar fragrance of Reynard, but of this variety it is useless to write now, or to use a slang phrase, "it is a little too previous." For the "Niagara" is "too utterly pure and precious," to be soiled by the hand (and money) of the vulgar public. There are a few other varieties, less "Heavenly" than the latter, of which we may have something to say in the future.

Notes on New Fruits.

Messrs. Editors American Farmer:

I send you a few notes as to my experience in 1882, with some of the new fruits.

GRAPES. MOORE'S EARLY.—This, like its parent, has proved a perfect success; its extra large berries, handsome black color and bloom, combined with its earliness, makes it a first class market grape; it is, however, not so productive as its parent, the Concord.

WYOMING RED.—A red grape resembling Delaware, somewhat larger in bunch and earlier; it is very hardy, rots little and is of excellent flavor before over ripe, though rather foxy if left to hang too long; sells well.

DUCHESS.—A medium size white grape of first class quality; rotted somewhat the past season.

LADY WASHINGTON AND HIGHLAND.—These two grapes have borne in my vineyard the past two years, but I am sorry to say they rotted so badly that I don't think they will do in exposed situations but ought to be planted against houses and walls in sheltered situations; they are certainly handsome grapes of fine quality and ought to have a trial in every garden.

Amongst the older varieties the Brighton is a splendid grape for the table, its large size of bunch, handsome red color and first class flavor, with growth and healthfulness of vine, make it one of the very best of table grapes; it likes a little better cultivation, however, than the Concord. The last three named varieties should have no summer pruning; the old leaves mildew and it is necessary to have healthy leaves to ripen the fruit. Noah is perhaps the largest, healthiest white grape out; it is a strong and healthy grower; bunches early, of handsome shape, a little late. Of the wine grapes, such as Elvira, Black Pearl and others I will not speak now, as the temperance people are very likely to kill this branch of business, although I know some that don't think "Rhubarb wine" composed of 3 lb. of sugar to the gallon of juice too strong to drink.

Amongst the raspberries, the Cuthbert is a great improvement; its large size, fine flavor and great productiveness makes it the very best for private use. For market it is rather late and will not, what the dealers call "hold up" like the Brandywine. The Blackberry Bruants or Brunton's Early of some catalogues, is now forced upon the public by agents at \$3 per dozen. I have a row of these bearing for the last two years; it is a Dewberry, very early and of large size, but it gives such a few perfect berries that it will never pay to grow for the market.

PEARS.—Brookwood or Brockworth Park, is a fine shaped pear of medium size, good flavor and great bearer, ripens about September; will make a valuable market pear.

PLUMS.—Basset's American. Two years of fruiting has convinced me that this is a very reliable plum; it is a great and early bearer of small sized plums; ripens in September, good to eat fresh and very good for cooking.

CHERRIES.—Luelling or Black Republican, a Seedling from Oregon has fruited with me alongside of a Black Tartarian; it is larger and later than the Tartarian and a very fine cherry.

WALNUTS.—Juglans Preparturien. This early fruiting Walnut is drawing a great deal of attention now in California, where large numbers are being planted. I imported these Walnuts ten years ago and planted them first in nursery rows for two years, from which they were planted then on the lawn of W. F. Frick, Esq.; they are about 8 feet high now and have borne two crops, which would make it six years from planting; the nuts are a little smaller, and as the tree is of a dwarfier habit than its parent, Juglans Regia, is suitable for smaller gardens. RHINELANDER.

Baltimore County, Jan. 20, 1882.

The Best Strawberry.

Messrs. Editors American Farmer:

Myrtle Grange, No. 106, Anne Arundel county, had for discussion on last meeting the question "which is the best and most profitable strawberry to grow for market." As was expected the question drew out considerable interesting talk upon the different varieties now claiming popular notice. W. Hawkins spoke very highly of the Kentucky Late as a late market variety, claiming that it usually brings paying prices when other kinds are a drug upon the market. He finds it to be very productive, large, showy, and easily grown; also spoke highly of the Cumberland Triumph, but was not sure of its being a good shipping berry. The Stuart, which was the earliest variety of all, did not succeed with him and would not do upon old land, or such as had been planted in strawberries previously. Thought it a good plan to grow an early and late variety in order to prolong the season; wanted to know of a good early sort.

F. Meushaw said he had tried nearly all the new and old varieties and had settled upon the following four as the best and most profitable kinds for general purposes, viz: Charles Downing, Sharpless, Kentucky Late, and a new variety christened Meushaw's Favorite, strongly resembling the Crescent but greatly superior to it in size, etc. Thought it best not to have too many kinds; select three or four best adapted to your soil and needs and stick to them. Spoke highly of the Sharpless as a large fancy market berry, bringing highest prices, and of excellent flavor.

B. F. Thomas agreed with Bro. Hawkins that it was well to have an early and late variety and suggested the Stuart as the best for early; it did well with him, was over before others were in their height, was a favorite with shippers, packers and buyers generally. Thought the manner of handling the fruit had a great deal to do with the profit of any particular kind. Was strongly

in favor of the Wilson as a standard market berry; was not in favor of mixing different kinds in same field on account of plants intermingling, thus injuring new sets, also causing confusion in picking, etc.

W. A. Shipley could not say much for the Stuart, was of the opinion that it had played out, would do nothing for him; would not grow upon light soil, and was liable to be killed by frosts on account of its habit of early blossoming; did not like the Wilson, as it, too, failed to do well on his place. Thought the Charles Downing the best berry for general cultivation.

James S. Benson liked the Stuart; did best of all with him, and being earliest was the most profitable; thought if the same cultivation and care was given it that some of newer sorts, with high sounding names had, it would give more satisfaction generally. Thought the cause of disfavor in which it is held by many was the slim chance given it among the grass and weeds which many seemed to think fit company for it.

A. Rider was in favor of Meushaw's Favorite, which was almost identical with the Crescent; it blossoms late, thereby escaping late frosts, was uninjured in the bud when others by its side were killed before blooming, and notwithstanding its lateness in blooming was the earliest (except Stuart) in ripening; was favorably impressed with it as a market variety; is very productive, fine size, good flavor and vigorous. Thought the Sharpless valuable, but was tender and easily injured by frost; did not like the Downing; did not do well with him; liked the Cumberland Triumph which was large and excellent, but too soft to handle well, cap comes off in picking, etc.

C. V. Anderson preferred the Downing to all others, was a showy berry, ships well, and bears full crop; thought the Bidwell a very promising sort, was large, good color and excellent every way, besides being quite early.

Joshua Osborne preferred the Wilson on account of its excellent shipping qualities, prolific habits and earliness; could not grow the Stuart; would not have any one plant them upon his place as a gift; did not think much of the Sharpless; did not wish to have the season prolonged by raising late varieties; thought them generally unprofitable; liked to get his crop off early at good prices so as to be ready for crops in waiting; the result of the experiences of the others proved what he already had in mind, that no particular variety was suited to every locality or soil, etc. Others among those present spoke favorably of the Crescent Seedling as being easily grown, showy and the greatest bearer among the many varieties now before the public.

Our Grange has found that subjects, like the foregoing introduced for general discussion among its members tend to and new interest in the order, and proposed to discuss questions at each meeting relating to the business of trucking, fruit-growing, etc.

R. S. C.

Harmans, Anne Arundel Co., Md.

The Norfolk, Virginia, Horticultural and Pomological Society

held its sixteenth annual meeting on January 13th. Mr. G. F. B. Leighton, who has been President since its organization was re-elected. In his annual address he said:

"We find the past season has resulted more favorably in the market gardening interest than any since the introduction of that industry in Tidewater Virginia. That the demand for such an unusually large crop should meet such remunerative returns was a surprise to us, and rebuts the oft-repeated remark that the trucking business is overdone.

On June 29th I addressed a note to the Cotton Exchange, suggesting that they assume the responsibility of collecting the

vegetable and fruit statistics of our export productions. Their President, C. G. Elliott, Esq., in acknowledging receipt thereof, strongly advocated the organization of a General Produce Exchange, in which I heartily concur. An exhibit of our surplus products would attract attention of many to the advantages of this interest, who are desirous of exchanging an austere climate for a milder one.

Last winter being of unusual mildness we have been visited with a multitude of twig girdlers (*oncidodes cingulatus*). I have had all the several twigs of my pear trees collected and burned, and I advise all that are cultivating pears to do the same, as each twig is infested with eggs for a generous supply of the beetle the coming season! The persimmon and hickory being equally attacked with the pear, the twigs of those should be burned.

Kainit as the basis of a fertilizer in pear culture is not fully appreciated. My experience in its use is most satisfactory. I would be glad to add ground oyster shells to the compost, but we are without mills of sufficient power to profitably utilize shells in this way, and the demand at present for shells on turnpikes and the filling up of water lots in and around the city, gives a value that would reduce the profits of such manufacture. It has been a surprise to me that Baltimore, with her surplus of shells and so great a radiating point in the distribution of fertilizers, should not long ago have added this valuable article to her list of fertilizers.

While our bays and streams furnish food for man, we overlook to a great extent the food so generously offered for the soil with a pittance of outlay of labor and capital. Lands contiguous to the water may be vastly improved.

Fruit buds are remarkably dormant, which is a favorable omen for the ensuing crop."

It was decided to hold no spring exhibition this year.

Kitchen Garden.—February.

Some one has remarked that mistakes in the management of land are to be expected, but that a repetition of the same mistake is unpardonable. However that may be I venture to say that mistakes that might be set down as avoidable do recur even in the best regulated gardens. We lay our plans in spring, and in summer do our best to carry out our purpose, but rarely, indeed, can we congratulate ourselves in the fall that all went exactly as intended.

I am sure that my earliest sweet corn was planted too deeply. In light land, or on any kind of land in an early season it would not have matured, but the cold spring of last year showed the importance of sowing just right.

I am sure that I undertook to cultivate more land than I could do justice to, but being peculiarly situated it is not so easy to see how this is to be remedied. My garden of 25 or 30 acres is made up of nearly a score of disconnected patches with soil of various kinds, much of it hard and poor. What an advantage it would be to be able to run a long furrow even in one direction. A partial remedy, I think, will be to reduce the area of the close crops to a minimum; to plow down annually the old strawberry bed, which cost much time and labor to keep in order; and, most important of all, to spread manure for almost all crops broadcast and adhere more closely to level culture which will save much labor and be equally profitable in the long run. The unknown quantity with me is the amount of labor required that has no proper connection with the garden, and which varies from year to year.

My first plantings of late cabbage set out in June did finely, but the second lot drawn from the same seed-bed a month later turned out poorly and became a prey to the worm. I

Judge that the second planting should have been from a *later sowing*, the plants of which would have been more vigorous and less liable to be attacked.

These are merely specimens of mistakes liable to be made by those who have been years engaged in the business, and which experience can only lessen, not absolutely prevent.

Now is the time to be thinking of proper tools for the coming out-door work and also for an interchange of views concerning them. Who in these parts has had experience with the gang plow, the revolving smoothing harrow or any new and useful implements suitable for the garden? A marker, to be drawn by a horse, that would leave behind it narrow furrows two or three inches deep for corn planting, etc., would be a very useful tool. If it could be made to mark uneven ground at a uniform depth, that would be very much in its favor. It occurs to me that this might be accomplished by having two sets of teeth in it, the front teeth rigid, and the others (set directly behind) movable, so that if a tooth should fail to touch the ground the one immediately behind would drop down and make its mark. It does not appear that there has been any improvement in the steel rakes since they first came into use; they look, in fact as if they were purposely made to break in the middle on the first plausible excuse. The same is true of that useful implement the digging-fork. As no dependence can be placed on them it is well to have an extra supply. There are some ingenious tools in the market which are well adapted for use on light land that is free from stones, but of no value elsewhere.

This month finds us making preparations for the busier months to follow. Manure should be collected and the heaps turned several times until they are of uniform quality throughout. The same with stable manure for the hotbeds, which will claim our attention more or less early according to the kinds of plants wanted or the predilection of the individual grower. Cabbage, lettuce and cauliflower can never be started too early, whilst tomatoes may very well be postponed until the end of the month.

No year should be allowed to pass without carrying out some little experiment if only for one's own satisfaction. There are several things in my mind concerning which I hope to be able to speak more definitely with the aid of another year's experience, and if every one is in the same state of indecision it follows that we have yet much to learn. This, by the way, reminds us of the value of the monthly Magazine where experiences can be discussed in a friendly manner, and where many more contributors would doubtless be welcome to add their mite to the general fund of information.

JOHN WATSON.

Onion and Celery Culture.

D. Landreth & Sons have issued, separately, in pamphlet form, two interesting series of essays for which prizes were offered by them in 1882, viz: one on *Onion* and the other on *Celery* culture. The writers hail from widely distant points, and thus much varied information is elicited. The subject of Celery culture is treated under eleven distinct heads, and that of Onions under no fewer than twenty-five. We note that 350 bushels of onions per acre, from the seed, is considered a fair average in some sections, but how far these figures may be exceeded under favorable conditions the following extract from the first prize essay dated at Pleasant Valley, Iowa, will show:

"In 1860, F. J. Briggs and Wm. Stewart each planted two acres of onions on same plot of river bottom land. Briggs used three pounds of seed per acre and the yield was 1615 bushels by weight; Stewart used four pounds of seed per acre which yielded 1630 bushels, the largest yield being 815 bushels per acre."

With regard to onion culture the writers agree in the main, one and all insisting on thorough preparation of the land, heavy manuring (except on virgin land), very early sowing, the cleanest culture and good seed at any price. We subjoin a few extracts. This from Mass.:

"The manure should be as free from weed seeds as is practicable, be well fined and evenly spread broadcast and plowed under. The best manure, I find, is a compost of the manure of the various animals of the farm, with about one-half of its bulk of muck thoroughly mixed and partly decayed. When about to be applied or before, mix in a proportion of salt to the amount of three or four barrels per acre. Good wood ashes to the extent of thirty to fifty bushels per acre may also be advantageously used. If the manure is not applied till spring it is essential that it be thoroughly rotted and fine, so that a harrow or cultivator will mix it well in the surface soil. If sea seed can be readily obtained it makes an excellent fertilizer plowed under. The amount of manure applied per acre varies with circumstances. Twenty tons is a fair dressing, and about the average with the general grower here."

"While the chief features of onion culture have now been explicitly stated, so that whoever can properly grow corn or cabbage can also raise onions; yet the general principles which underlie success may be summed up in the following brief statement. The cardinal points essential to success are, well prepared suitable soil, sound seed from ripe selected onions, and thoroughly clean and deep tillage. For the larger crops add liberal fertilization."

The pivotal point is *good seed*, without which, all other conditions being fulfilled, and their cost incurred, loss or reduced profit is inevitable. Almost any soil can be made suitable, any cultivator can give good tillage, but neither skill nor cost in other respects can remedy the radical defects of unripe, or old, or weak seed with perhaps vitality enough to sprout, a delusive test, but too little to survive great extremes of wet and drought, heat and cold.

The best seed from the best onions will endure great variations, even to standing unhurt through snow, sleet and ground long frozen; and, at harvest, except where continued rains prevail, scallions or thick-necked onions will be unknown."

Only false economy will sacrifice sought in quality to save five or ten dollars per acre on the cost of seed with so much other cost at risk; when at an average price, an increase of ten bushels per acre will pay the extra cost. Buy no seed at home except from those known to be careful as well as honest. Order elsewhere only from those who cannot afford to damage their fair fame for a trifling extra profit."

Much that is written from distant points in regard to the treatment of *Celery*, particularly of irrigation and storing for winter, is hardly practicable in these parts, but the general principles governing its proper management are, of course the same everywhere. It is noticeable that the *dwarf* varieties are steadily growing in favor, as is also the practice of *flat* culture mostly in single rows. We may in our next give some extracts from the celery essays. There is much useful information scattered through both books that will benefit whoever reads them.

Hot-Beds.

As the time is now approaching when the hot-bed must be made ready, a few words in regard to its preparation will be seasonable. The frame and pit should be prepared in the fall, before the ground freezes, and covered up with litter, to prevent freezing, or covered over with ashes and shutters, for the same purpose. If, however, this has been neglected, the only way left is to dig through the frost a pit six feet and a half wide and as long as the bed is to be made. The pit, when finished, should be about a foot and a half deep from the level of the ground. Be careful to select a location where the bed will be sheltered from the northwest winds, and also well drained, both as to surface water, in time of flood, and spring-water from below, for water will speedily spoil the heat of the best hot-bed.

When the pit has been dug out, put down

the planks at each side, using 2x10 inch for the north side and 2x8 for the south side. Let these planks be supported by stakes 1x4 inches, sharpened, driven into the ground, and nailed to the planks every six feet in the length of the bed. The north plank should be four inches higher than the southern one, while both should be nearly level as to the length of the bed. They should be braced apart about one in nine feet, so as to just fit a 3x6 sash when placed upon them. The ends are formed by simply fitting a piece of plank across at such places as the sashes will fit perfectly.

To keep the pit from freezing, put on the sashes and shutters and bank around it well with straw litter or horse-manure until needed for use.

There is a great variation in the different sorts of manure as regards heating properties, and a little judgment and experience will be needed to make a good hot-bed. The advice usually given, to put in two or three feet of manure, would, perhaps, be safe for cow dung, or horse dung from horses fed on meadow hay, without grain or litter; but there is no need of taking all this trouble, if a load or two of good, fresh straw horse-manure can be obtained from some village stable, where they are well fed and littered. The hotter the manure and the fresher the better. Ten or twelve inches of such heat will be better than three feet of half-dead and alive stuff. To start hardy seeds—such as cabbage, or lettuce, or radish—only six or eight inches of such heat is needed, covered with six inches of soil. For the more tropical seeds—as tomato, egg-plant, pepper, and cucumber seed—about twelve inches of heat is desirable, covered with six inches of loam. The temperature of the loam for hardy seeds should be 50° to 60°, and for the tender or tropical plants 60° to 70°.

The hot-bed should be aired freely when the sun is bright and sprinkled only when the surface is dry. Too much sprinkling, especially before the seed comes up, is to be avoided, since it crusts the surface. Of course, the bed will need to be carefully covered at night with mats and shutters, to keep out frost, and should be well banked around with litter or manure. The loam or the hot-bed should be fine and rich, made of fine manure, sand and loam, well mixed. The sand will give the roots a tendency to develop fibers and lessen the chances of rotting or damping off in wet weather.—Wm. D. Philbrick in the *American Cultivator*

Manuring Trees.

We notice frequently outlandish recommendations, agriculturally and horticulturally, which must lead to failure and discouragement. We have now before us one of these for stimulating the growth of trees, *by boring holes in the ground and pouring in liquid manure about the roots?* How the roots are generally to be got at in this way we cannot see. What better can be desired than applying the same liquid uniformly over the ground and let it soak in? If the surface is very hard it should be loosened. Or, what we contend is still better, top dress the surface as far as the branches extend with good manure, and the substance will soon find its way uniformly to the roots with the assistance of the rains. Our own judgment and practice has always been to treat the soil in which the trees, fruit and ornamental, grow, as far as can be done, the same as soil that is cultivated for vegetables or general farm crops, and we have always been satisfied with the result. As some evidence of the effect of such application we will mention this instance: Some years ago a hemlock spruce had a rusty appearance and at last fell much behind the others in depth of color. It was about twelve feet in height, and must have been set out at a spot where the soil was not as affluent as

that where others were planted. At any rate two wheelbarrow loads of good manure, spread out as far as the extremity of the branches, restored it perfectly the first year, and it was among one of our handsomest trees.—*Germantown Telegraph*.

Seeding to Clover.

I have been farming for 42 years, and will tell my experience in securing a good field of clover every time. If I want to seed down a field of wheat, I wait until the ground is settled in the spring and the hard frosts have passed, then I sow six quarts of clover seed and four quarts of timothy well mixed. I follow by harrowing it in and then roll the ground. Then I sow 100 pounds of plaster to the acre. If I seed with oats I sow the same amount of seed, but after the seed oats are dragged in. I omit the dragging after the clover seed is sown, but immediately put on the roller, which is beneficial to both oats and clover. I then sow heavily of plaster—on light soil 150 pounds per acre is not too much. The plaster helps the oats on dry land five times its cost, and is what saves clover in dry weather. I sow my seed mixed, so that if the clover does kill out, the timothy will take its place. To get a good catch on sandy land that is badly run, I have observed the above rules and always get a splendid stand of clover.—*Cor. Farmer and Manufacturer*.

AGRICULTURE IN THE SOUTH.

Its Needs and Opportunities.

By TH. POLLARD,

Ex-Commissioner of Agriculture of Virginia.

In our last we were discussing the importance of manufactories to the interests of Southern farmers. In view of want of home markets for farmers, and in further view of the abundance of raw material to be worked up, the abundance and cheapness of labor, and the mildness of our winters, manufactories should be generally established in the South.

It is true that few of our laborers are experienced artisans, but the introduction here of skilled workmen would soon teach large numbers of our negroes, and others, to become competent manufacturers. No hands work up our tobacco with more skill and expedition than our former slaves. All we need to inaugurate large and extensive manufactories is capital. Virginia is already interested largely in manufactories, particularly in flour, tobacco and iron. The quantity of wheat worked up is very large, and her flour stands at the head of the market. We need these mills, however, in all sections of the State, that we may have consumers at our doors, and that we may save the bulky transportation of mill-offal which should be kept and fed on our farms. Besides these major articles we may find many minor ones that will pay to work up in merchantable form. Such are our timbers, which are still extensive, particularly in Piedmont and the mountain regions, Sumach, wool (which ought to be largely increased), fruits, vegetables, etc. There is no section in the Union better adapted to the raising of fruit, especially apples, than Piedmont, the mountains and the Valley. Probably more than half this is fit for marketing, mostly because it will not bear long transportation. This should be canned, the cans being manufactured at each establishment; and by being converted into dried fruit by "Evaporators," which prepare an article for the table almost fully equal for cooking purposes to the green fruit as it comes from the trees, and greatly superior to the old-fashioned "dried fruit."

Probably there is no State in the Union that is capable of raising a greater variety of vegetables, and in better matured condition, than Virginia. These should be extensively canned in every section of the State. This has been successfully accomplished in several counties, the vegetables which are put up being declared equal to any. We refer to the

canning establishment of John B. Davis, of King William; James E. Tinsley, in Hanover and Henrico, and an establishment in Botetourt, the latter of which especially is said to have done this business very profitably.

The canning of oysters in Virginia ought to be made very profitable. One evidence of the advantages of manufacturing to farmers is the fact, according to Mr. Edward Atkinson, of Boston, that the lands in New England (on account of her manufactories) have not deteriorated but have rather increased in value under the competition with the immense grain crops of the Western States. As far as we know every manufacturing country has been a prosperous one. See New England, Old England, France, and other countries of Europe.

Farmers must read and study agriculture. Agriculture is a science, not as accurate and true as some others, still it should be diligently studied by every farmer regardless of the foolish taunts about "book farming." We do not mean that every farmer should learn the scientific side of agriculture, but enough of the science to make him understand the "why and the wherefore," as far as he can, and to make deductions from general principles. While a person may learn to farm well without reading, particularly if he has the every-day teaching of a wise and experienced farmer, still there are few so situated as to have this advantage. A person again by his own experience may learn farming, but by the time he has acquired sufficient information he will be passed his prime, and in the meantime what will he not have lost by the blunders and inexperience in his business. A farmer said to me some time since that he followed his own experience, and not that of others. I asked him what he did before he had gained that experience. Farmers must understand that in devoting their sons to agriculture it requires a man of good sense to make a good farmer. For a long time the absurd idea prevailed that if a boy was not fit to be a lawyer, or doctor, or anything else, he was fit to make a farmer of. Fortunately this idea is not so prevalent as it once was, but still many farmers who intend their sons for the farm think they can get along with very slim educations. As bearing on this point it seems that we may learn a lesson from the Japanese. Dr. Nichols in a very interesting paper read before the "Massachusetts Board of Agriculture" on "The Old and New Agriculture," says "The apt bright Japanese," and the ingenious Chinaman, unprogressed as they are supposed to be, alike repudiate ideas of this nature, (that the most stupid and uneducated of farmer's sons are to be made farmers of). Parents in those countries, we are told, place their stupid, feeble minded sons in positions suited to their capacities, as burden bearers, or as workers on canals or stone quarries. To properly cultivate the soil, they rightly assume, requires good judgment, quick perception, ingenuity and industry. Japan, several years ago, established an agricultural college upon the model of the Massachusetts Agricultural College. While scientific and classical education is not necessary to make a good farmer, it is always an aid in every vocation, and we venture to assert that there is no educated man, who succeeded in life, who ever regretted the money spent on his education, while there is many a one who has lived to regret his want of education. While the chemistry of agriculture is not essential to make a good farmer, it is always an aid to him, and a source of pleasure and gratification. The unreasonable prejudice against "book farming" is dying, and it is only necessary to reflect that from books and agricultural journals we get the experience of our fellow farmers. See how absurd is this prejudice. Why not get it in this way as by conversation? Of course, all we read and all we hear from others must be examined

and scrutinized to get at the truth, or must be tested by trial of some sort.

It may be presumed that one who prepares anything for publication would take more pains to be exact than one in conversation. It seems almost impossible to conceive that a farmer can be well posted in modern agriculture, in the improvements being made in cultivation, implements, stock, seeds, modes of improving lands, etc., who does not read agricultural works. How would a physician or lawyer get along in their professions if they did not read medical and legal books, containing the recent improvements and discoveries in medicine and the recent decisions and recently enacted laws. The farmer stands on the same footing, and must be badly posted in his vocation if he does not read. Almost every farmer takes a newspaper, and many of them read all the political news. How much better if half the time or almost the whole of it was devoted to agricultural reading. The proportion of those who take agricultural journals is small.

The question may be asked what farmers should read? Let every farmer take some good agricultural publication, of which there are many. Then let him buy, or if he cannot afford to do this, borrow if he can some standard works pertaining to his vocation; such books as—

How Crops Grow.....Johnson
How Crops Feed.....Johnson
The Farmer's Book.....Dickerman & Flint
New American Farm Book.....Allen
Scientific Agriculture.....Pendleton
American Cattle.....Allen
Sheep Husbandry.....Randall
Sheep Husbandry for the South.....Hayes
The Sheep.....Youatt
The Pig.....Haines
Swine Husbandry.....Coburn
The Horse.....Youatt
The Horse.....Stonehenge
Grasses and Forage Plants.....Flint
Journal of the Royal Agricultural Society of England.

Farm Implements and Machines.....Thomas
Food of Animals.....Thompson
Scientific & Practical Agriculture.....Campbell

If information is wanted on drainage, irrigation, grape culture, fruit culture, gardening or insects, then read on—

Drainage.....Waring
Irrigation.....Stewart
Insects Injurious to Vegetation.....Harris
Fruits and Fruit Trees.....Downing
Grapes.....Fuller & Hussman
Three Years in European Vineyards.....Flagg
Gardening for Profit.....Henderson

Valuable information for the farmer will also be found in the Reports of the U. S. Agricultural Department and Patent Office Reports, and the reports of the different State Departments of Agriculture, particularly those of Massachusetts and Tennessee. In addition to the farmers' journal, those who wish to raise stock to the best advantage should take some good stock journal, of which we know none better than the *National Live-Stock Journal* and the *American Stockman*, published in Chicago, and the *Kentucky Live-Stock Journal*, Lexington, Kentucky. But do not let our farmers forget to patronize our Virginia and Maryland agricultural journals, which only need patronage to make them equal to the best. The farmer cannot be expected to read all these authors, but must select those best suited to their wants. "The Farmer's Book," and the "American Farm Book," in addition to the above, will be found very valuable, particularly for consultation. Randall and Hayes on the "Sheep" are among the best authors on this important subject. Stonehenge on the "Horse" is the most valuable of the books on this animal, though it is rather costly. The "Journal of the Royal Agricultural Society of England" is a work of much value, and the farmer is fortunate who can get access to it.

The American Farmer

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* Subscribers who have minerals, ores, marls, fertilizing materials, or other substances, will be advised through our pages, by competent chemists, as to their composition, uses and value, by forwarding specimens to this office, expressage or postage prepaid. Questions as to application of chemical science to the practical arts will also be answered.

* Persons desiring information or advice on diseases or injuries of domestic animals, will receive replies from a competent veterinary surgeon, by giving a plain statement of the symptoms, etc.

At the office of THE AMERICAN FARMER are located the offices of the following organizations, of each of which its proprietor, Wm. B. Sands, is secretary:

Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, P. of H.
Agricultural Society of Baltimore Co.
Also, of the Maryland Poultry Club,
Thos. W. Hooper, Secretary.

BALTIMORE, FEBRUARY 1, 1883.

To the Friends of the Farmer.

We rely, with confidence, upon our present readers continuing to canvas their respective neighborhoods for new subscribers and enlarged lists for our publication. Our thanks are tendered to those who have already forwarded clubs, and we count upon those who know its work and worth, to give its circulation a strong push during the dull season. We think the issues for this year will show there is no going back in the interest or usefulness of its contents. We again refer to the premiums offered for lists of subscribers.

SEVERAL interesting contributions, received too late for this issue, will appear in our next. We call upon our readers who have information or experiences likely to be of value to their fellow-workers in agriculture, to give in the benefit of them in our columns.

Messrs. Harkness' Sale of Jerseys—More Purchases for Maryland.

The sale in Philadelphia of Messrs. A. M. Harkness & Co., on January 18, was unusually largely attended. There were sold seventy-four cows and twenty-seven calves, the cows averaging about \$446 and calves about \$206. The following Baltimore county breeders bought the animals named: Edward Austin, Dianne, \$945; Augere's Love, \$460; Crown Duchess, \$425; Glayford, \$390, and two heifer calves at \$230 and 250.

Watts and Seth, Empress, \$775, and a heifer calf \$155.

F. Von Kapff, Lara and her bull calf, \$830.

John E. Phillips, a heifer calf, \$150, Wm. H. West, a bull calf, \$35.

The same day as the sale, the Messrs. Harkness received another lot of cattle, said to be among the finest ever shipped to Philadelphia, several of them having cost over \$5,000 on the Island of Jersey.

DEATH OF TREASURER OF MARYLAND STATE GRANGE.—The venerable Joseph N. Barlow, Treasurer of the State Grange since its formation, died suddenly at his residence in Frederick county on the 19th of January. He was thoroughly imbued with the principles of the Grange, possessed of many amiable qualities, and was everywhere honored and beloved. He was a large farmer and was widely known.

The Grange.

National Lecturer's Communication.

SUBJECT FOR SUBORDINATE GRANGES FOR FEBRUARY.

Question—How can we make farm operations most profitable?

Suggestions—Consider soil and climate best adapted to certain products. The advantages of markets, facility for producing and handling the same. Exchange ideas obtained from past experience in producing and marketing certain crops. Consider capital and help at command, risks, etc.

A thorough discussion of this question may enable us to plant more intelligently with hopes of greater profit.

Maryland Granges.

ELKTON, No. 145, Cecil County, met in Elkton, on January 13th, it being an extra occasion. A large representation of the order from this grange and from other parts of the county, as well as a number of specially invited guests, were present.

At about 11:30 a. m. the meeting was called to order in the Lodge Room by Mr. Daniel Harvey, the Master. After the opening exercises Past Master Henry S. Coudon, of Principe Grange, assisted by Mr. Edward Collins, of this grange, installed the following officers who had been elected for the ensuing year: M. Nicholas P. Manly; O. S. K. Blake; St., Robert Ricketts; Lec., H. P. Fowler; Asst. St., Matthew Pierson; G. K., John Able; Pomona, Mrs. N. P. Manly; Ceres, Mrs. F. P. Pennington; Assistant Lady Stewards, Miss Maggie Gilpin.

At one p. m., the entire company repaired to an adjoining room and sat down to a most bountiful dinner, consisting of poultry, meats, etc., cakes and delicious pies. At 2:30 p. m. the meeting was called to order again in the Lodge Room. Addresses were made by Messrs. Geo. A. Blake, Wm. Dean, of Newark, H. S. Coudon and Prof. T. L. Graham. The meeting adjourned about 4 o'clock. The music was greatly enjoyed by all.

LOCUST GROVE, No. 173, BALTIMORE CO.—The following officers were installed on January 17th for the ensuing year: M., R. Vincent; Jr., O. D. D. Kenney; L., J. A. Milling; O., Wm. H. Merritt; S., Jas. A. Wood; A. S., J. Volz; T., John Gross; Sy., James G. K., A. Haufmeister; P., Mrs. John Gross; F., Mrs. Jake Gross; C., Mrs. R. Vincent; L. A. S., Miss Maggie Gross.

QUEEN ANNE'S GRANGES.—There will be a union meeting of the several Granges in Queen Anne's county in Centerville on Tuesday, February 13th. The Master of the State Grange and others will make addresses.

VISITS OF STATE MASTER.—By the action of the Executive Committee it is made the duty of the State Master to visit every Subordinate Grange in the State during the year. M. Devries has issued a circular asking the co-operation and aid of the Granges, so that one visit may at least cover each county.

Home Department.

Little by Little.

How easily we become discouraged when we fail to see evidence of progress toward the accomplishment of our undertakings, forgetting that most things of consequence in nature, art, or science, are the result of imperceptible growth or development. The lesson of patient waiting and striving is so constantly before us that it is remarkable how slowly we take it in. Often the best years of our lives are wasted in fruitless efforts, because we have not the wisdom or patience to wait for the time required to fully perfect one thing before abandoning it to attempt another.

Whether our ambition is to be wise, or great, or good, we must be content to arrive at the object by slow and easy stages, or else by undue haste we may frustrate our best efforts. Riches that come in a night are very apt to take themselves wings and fly away; goodness born of sudden resolve or impulse is never to be relied upon; greatness which is thrust upon us rests uneasily, and wisdom must be searched for long and earnestly before it will respond to our call.

It is chiefly because we do not properly value the little things which form the component parts of whatever is to be accomplished that we fail to recognize progress and become discouraged without cause.

Successful men and women, whatever field they may have labored in, will assuredly testify to the importance of doing a little at a time, and persistence in so doing. The little it may be in our power to do to-day may be so very little as to seem not worth the doing,—but if we are careful that there shall be no undoing it will surely tell in the end. We are told that the deep snows of Russia are not the result of storms such as we have, but of nightly frosts, which spread themselves evenly over the face of the earth until the important covering of vegetation, and the possibility of travel from one part of that vast realm of King Frost to the other, is secured without the accidents of drifts and drifting to which our latitude is subject.

Like these kindly frosts should be our constant adding to any worthy object to which we have committed ourselves. If our desire is to overcome some habit which we know is not what it should be, every honest effort adds to our power to do so, until finally it will fall away almost unconsciously. If we wish to store our minds with something worth having, and holding one may by very little application each day, (or every day when we can do so, allowing for interruptions,) at the end of the year find ourselves, at home, on some subject, which, but for the securing a little at a time, would have been to us as if it never had been written. We sometimes look with longing at the backs of books temptingly arrayed upon the book shelves, thinking we would be so happy if we only had the time to read them, while the truth is we could almost always find time if we were satisfied to take it in snatches. Until this is tried and the habit of holding thoughts thus gathered from one chance-reading till the next, it is difficult to realize the good effect of such a course, over and above that of gathering the authors' ideas or information. It gives the mind a chance to digest what has been taken in, and will consequently not only leave the matter in better shape to be useful to us in the future, but the mind is strengthened by it, and to a healthy degree diverted from dwelling upon trifles of daily experience, which, if allowed to monopolize our interest, ultimately cramp the mind and unfit it for anything else.

To convince ourselves of the possibility of finding time for some useful reading each day, we need only to get a chance at some intensely interesting novel, and there will, no doubt, be more than one hour out of the

twenty-four given to it without encroaching upon working or sleeping time. How many hours, with such encroachments, depends upon circumstances we are no considering.

The novel is well enough for recreation, taken as we take other pleasures, in some cases, no doubt, most beneficial to the reader, but they should be as the dessert after a suitable dinner, and like dainties given to sick people; they are no more fit for regular mental diet than sweets and delicacies would be for our daily food.

It is simply useless for most of us to say that we have no time to improve our minds; if we really wished it we could every day put aside something of less importance and gain a little for that purpose. The time we may be able to command often is so very short that we attach no importance to it, but there it is for us to use or waste; if we make the best and most of it, we will be the gainer to an extent we would hardly have supposed; if we let it pass, looking for a larger measure in the future, we will probably be unfit to use the larger measure when we get it, if we ever do.

Life is not only made up of little moments, but all we have and are is the result of small beginnings and likewise small additions. Small economies are often matters of jest, but small economies somewhere produce all the large fortunes. When we hear manufacturers or merchants calculating on small fractions of pennies as their percentage of gain, we can hardly believe that this constitutes in many cases immense fortunes. In proportion to our means, if they are not large, are the "small economies" in our households. Matches and candle ends may be insignificant things to take a care about, but they are nevertheless a part of the whole, and if we are bent upon our duty in such things, they are no longer "matches and candle ends," but that small percentage, which to lose, means to lose our chance of acquiring what is the almost universal aim, comfortable independence. If the truth were known we would find the chance for solid comfort and the means to do generous things, takes itself off through "matches and candle ends," and such trifles as return as no compensation.

Care of little leaks is the lesson house-keepers need most. Nothing we have or use need go to waste; when it has served its original purpose it may always be turned to another. What the rag-bag used to claim as its own is now to almost the last bit turned to some useful purpose. Curtains, rugs and tasteful carpets can all be wrought from its contents. Almost everything that formerly found its way to the running streams through sinks and otherwise, is now put upon the surface of the ground to return us riches through our crops. This, no doubt, seems of small consequence to those who do not keep an eye to the future results, but who can tell; it may be the means of keeping this world from becoming a vast desert.

Not only in the matter of what we are and what we gather do these little things count, but in what we contribute to the general good, whether in words or deeds. There are in every community matters of universal interest and which public opinion must control. It may be no special business of mine or of any other individual. And there may be great virtue in each one of us minding our own business as a rule, but if any one must speak to secure a good or prevent an evil, which of us have the privilege of withholding the *mite* of influence we possess?

If there is anything needing to be done for others and we can help to do it, we have no right to withhold that help because we can do only a little; one little may be of as much consequence as the abundance of others.

As the pebble thrown into a large body of water sends its ripple to the extreme bounds thereof, so do I believe every atom of deed or thought may be so used as to effect to the utmost our being and our welfare.

UNREGARDED TRIFLES.—I was enjoying the hospitality of a Frenchwoman who certainly has a reputation for prudence. A cherry pie had been on the table, and the mistress gave strict injunctions that all the stones should be scraped from the plates and placed in her store-room. I ventured to ask the reason; and was told that not only cherry but plum, peach, and all manner of stones, whether cooked or raw, were invariably saved, gently dried in the oven, and kept in a glass jar. "Then," said madame, "in the winter, when the fire burns clear and bright in the evening, I fetch a handful and throw them among the glowing coals. They crack and splutter for a moment, send up a brilliant flame, and the whole room is filled with a delicious odor."—*Exchange.*

Breakfast Rolls.

Take two quarts of flour, rub into it two tablespoons of butter, one teaspoon of sugar and one of salt. Scald one pint of sweet milk, and when partially cooled, put in it one-half cup yeast. Make a hole in the flour and pour this in, stirring it very carefully, just enough flour from the edges of the little well to make a *very thin* batter. If this is done after dinner, at early tea-time it will be light, then knead it well. It requires no additional flour. When thoroughly light, roll out and cut with a large biscuit-cutter, butter and fold like a turn-over, and set them over night in the cellar, where they will rise slowly and be ready to bake for breakfast. S. A. F.

Twelve Flowering Shrubs, Suitable for Small Gardens.

In the suburbs of a city, also in villages, the great majority of people have small plots of unoccupied ground adjoining their dwellings, the adornment of which with flowers and flowering shrubs, always give a charm to any home.

To decorate these, annually, with plants obtained from a florist, would form an item worthy of consideration in a pecuniary point of view. As permanent substitutes for such, we recommend the following twelve flowering shrubs, the first cost of which would not amount to more than a small bed of geraniums, and if properly cared for will last the half of one's lifetime.

In the selection of these twelve kinds, we have endeavored to embrace sorts, some one of which will be in bloom from March to December. We have also had an eye to name only those that are perfectly hardy, free bloomers and of good habit.

1st. *Jasminum nudiflorum*, (naked flowered Jasmine), which produces a profusion of yellow flowers early in spring, before the leaves make their appearance.

2d. *Forsythia viridissima*. In spring, this like the preceding produces its bell-shaped flowers, all along the branches; is a strong grower and very desirable. Some people call it the Golden bell shrub.

3d. *Cercis japonica*, (Japan Judas Tree), a very handsome bushy plant from 4 to 6 feet high, producing on the old wood, from the ground upwards, numerous clusters of rose colored pea flowers, which for beauty have few equals among shrubs. Its glossy neat foliage makes its appearance, as the flowers begin to decay.

4th. *Pyrus japonica*, (Japan Scarlet flowering Quince), a popular and very hardy thorny shrub, which in strong clayey soils produces in spring a blaze of scarlet flowers, that are followed by a fragrant fruit from 1 to 1½ inches in diameter. It forms also a very elegant division hedge.

5th. *Weigelia rosea*. This is one of the longest known, and we think it one of the most desirable of the numerous species of this genus, yet introduced. When grown in rich land, will produce shoots 2 to 3 feet

in length, wreathed from bottom to top with rosy white colored flowers. Its habit is somewhat erect.

6th. *Weigelia amabilis*. The flowers of this are of a darker color than those of *W. rosea*, having stronger and more spreading branches, bearing flowers first in June, and again in the fall.

7th. *Spiraea Reevesi* *flora pleno*, (Reeves's double flowered Spiraea). Flowers pure white, and so abundantly produced, that when a healthy plant is in bloom, it reminds one of a ball of snow. It frequently produces clusters of flowers in the fall months also.

8th. *Spiraea Thunbergii*. This is a neat graceful, low growing bush, with numerous slender branches, beset with linear leaves, which towards the fall, take on a crimson tint, and are often used by ladies in forming letters and figures in making up foliage pictures.

9th. *Deutzia crenata*, *flora pleno alba*, (Double white flowered Deutzia). Forms a bush rigidly erect from 4 to 6 feet high, but when in bloom is an object of much beauty. A nearly related variety bears flowers that are faintly tinted with red on the outside.

10th. *Viburnum plicatum*, (Plaited leaved Snow Ball). This is a great improvement on the old Snow Ball, being much neater both in flower and foliage.

11th. *Hydrangea paniculata*. No Hortensia that has yet made its appearance in our gardens, can surpass this, for robustness of habit and size of its densely panicle heads of flowers, which at first are white, but change gradually to pink towards fall. Every garden worthy of the name, should contain at least one plant of it.

12th. *Callicarpa Americana*, known by some people as *C. purpurea*, neat growing bush about 4 feet high, whose flowers though obscure, are followed by clusters of purple berries in the fall, forming a wreath of the branches from two to three feet in length, and in this state, is a much admired plant.

The whole of the twelve shrubs already enumerated can be procured from any reliable Nurseryman for \$3, or at most \$3.60. When planting them, do not omit to plant at the same time a few purple and white lilac bushes, also a sweet scented shrub, for without one or all of these we deem no house, yard, or garden complete.

HORTUS.

The Agricultural College.

No appointment has yet been made of a president of this institution.

In the meantime the politicians are busying themselves about it, the enlargement of the board by the addition, as *ex officio* members, of State officials occupying purely political positions giving some of the 'bosses' a chance to have a finger in the pie.

There is not and ought not to be any connection between an agricultural college and practical politics, and this intermeddling forebodes no profit, either to the college or the farming interests.

LARGE PURCHASE OF FINE SHEEP.—Mr. F. Carroll Goldsborough, of Talbot county, Md., has purchased of Mr. T. S. Cooper, of Coopersburg, Pa., his entire recent importation of Oxford down sheep, about forty head. The price paid being reported at \$2,500.

A WRITER in the *New York Times* emphasizes the fact that the profit of the dairyman comes wholly from his good cows, and that many a dairy might be reduced one-half in number of its cows and the dairyman make more profit than he may have done from the whole original number, because one poor cow will not only "eat off its own head," but will eat off that of another and a better one, too, before it has equalized the profit and loss of the keep of the two.

Baltimore Markets, February 1.

Tobacco.—Leaf.—The very limited arrivals and the small stock offering afford little opportunity to buyers for making desirable selections, and the market is very quiet, the business in Maryland being confined to such lots that suit some special order or are pressed for sale to realize. Generally the market is quite steady. We quote: Maryland inferior frosted \$2.50@4.00; do. sound common \$4.50@5.50; do. good common \$5.50@6.50; do. middling \$7.00@7.50; do. good fine red \$8.50@10.00; do. fancy \$10.00@15.00; upper country \$4.00@10.00; do. ground leaves \$3.00@13.00.

Live Stock.—Beef Cattle.—Market very slow throughout. Prices ranged as follows: Best \$5.75@6.40; that generally rated first quality \$4.50@5.50; medium or good fair quality \$3.75@4.75; ordinary thin steers \$2.50@3.50; do. \$2.50@3.50; extreme range of prices \$2.50@4.00; most of the sales were from \$4.00@5.50 per 100 lbs.

Hogs.—Trade is reported as fair to good. We quote very common to fair Hogs at \$3.50@4.00; very few and very common at the inside figure; \$3.50@4.00; for fair to good, and extra 9¢ cts. per lb. net, with a few selections a shade higher.

Sheep.—There is a very moderate demand, which is wholly confined to sales to our home butchers. We quote common to fair Sheep at 3¢@5¢ cts., and fair to good at 5¢@5½¢ cts. and a few extra at 6¢ cts. per lb. gross.

Flour.—The inquiry active and market firm. We quote: O. S. and Western Super, \$3.50@3.75; Extra do. \$4.00@4.25; do. Family \$5.00@5.50; City Mills Super, \$3.50@4.00; do. Extra, \$4.25@4.75; do. (Rio Grande) Extra, \$5.50@6.00; do. Baltimore winter wheat patent \$7.25; do. high-grade Family \$5.50; do. do. Extra \$6.25; do. second-grade \$5.10; do. do. third-grade \$4.75; do. Fine \$5.25@5.50; do. Rye Flour \$4.00@4.25; do. Corn Meal per 100 lbs. \$1.30@1.55.

Buckwheat Meal.—The market is dull and low. We quote at \$2.75@3.00 per 100 lbs.

Wheat.—The market is firmer. Good to prime samples sell at \$1.10@1.15 for Fall and \$1.10@1.30 for long berry. Spent \$1.15@1.15; February \$1.15@1.15; March \$1.17@1.17.

Corn.—The market for Southern Corn is quiet but firm, with continued light offerings. The sales were at 64¢@65¢ cts. for white and 62¢@63¢ cts. for yellow; 63¢@64¢ cts. for spot; 64¢@65¢ cts. for February 65¢@66¢ cts. for March and 66¢@67¢ cts. for April.

Oats.—The market is quiet but firm. We quote Maryland and Pennsylvania at 46¢@48¢ cts.; mixed Western and Pennsylvania at 46¢@48¢ cts.; mixed Western 47¢@49¢ cts.; bright do. 50¢@51¢ cts.

Rye.—Buyers are bidding cautiously, and the market is quiet and easy. 66¢@70¢ cts. per bushel for fair to good.

Hay and Straw.—There is some scarcity of large bales of choice Timothy, but the general market is well supplied with Hay, and the feeling is only steady. We quote as follows: Cecil county Timothy \$17@19; Maryland and Pennsylvania \$14@16; New York and Western \$13@15; mixed \$11@12; and Clover \$11@12 per ton. Straw is quoted at 8¢@9¢ for Wheat; 10¢@11¢ for Oat; 12¢@13¢ for long Hay, and 10¢ for short do.

Mill Feed.—There is no pressure to sell and the market rules steady with fair demand at \$18@19 per ton for Western, and \$19@21 for City Mills.

Butter.—The market is dull and easy. We quote: New York State choice 20¢@23¢ cts.; Creamery, prime to fancy, 23¢@28¢ cts.; Western choice 22¢@24¢ cts.; do. good to prime 19¢@21¢ cts.; Western Rolls 18¢@22¢ cts.; and near-by receipts 18¢@22¢ cts. per lb.

Eggs.—The market is steady for fresh lots, with a regular demand at 25¢ per dozen. Pickled stock is not wanted at any price.

Poultry.—There is a constant demand and the market is steady with light supply. Undrawn lots are quoted at 16¢@17¢ cts. per lb. for Turkeys and 12¢@14¢ cts. for Chickens, and drawn 10¢@12¢ cts. higher.

You Make no Mistake.—If you have dyspepsia, sick headache, or your liver or stomach is out of order, take J. M. Laroque's Anti-Bilious Bitters. Only see that you get the genuine article. 25 cents a paper, or \$1 a bottle. W. E. Thornton, proprietor, Baltimore, Md. Sold by druggists.

The compliments of the season—colds, coughs, catarrhs—may be effectively dealt with by taking Ayer's Cherry Pectoral. To neglect prompt treatment for these ailments is to risk consumption, which is said to cause one sixth of the mortality of all civilized countries.

Despise not small things. That slight cold you think so little of may prove the forerunner of a complaint that may land you in the grave. Avoid this by taking Ayer's Cherry Pectoral, the best of known remedies for colds, coughs, catarrhs, bronchitis, incipient consumption, and all other throat and lung diseases.

The world-wide reputation of Ayer's Hair Vigor is due to its healthy action on the hair and scalp, through which it restores gray hair to its original color and imparts a gloss and freshness which makes it so much desired by all classes and conditions of people.

Ladies Prefer Floreston Cologne because they find this lasting combination of exquisite perfumes a delightful novelty.

A Valuable Addition. Because it is beneficial to the scalp and adds to personal beauty by restoring color and lustre to gray hair is why Parker's Hair Balsam is a popular dressing.

Good for Babies. With a baby at breast nothing is so useful for quieting my own and baby's nerves as Parker's Glyceric Tonic. It prevents bowel complaints, and is better than any stimulant to give strength and appetite.—A Newark Mother.

1883.

PREMIUM LIST

—OF—

THE AMERICAN FARMER

Valuable Premiums to all who consume time or take trouble in enlarging its circulation for 1883.

TAKE NOTICE:

No special authority is required from us to enable any one to act as agent.

Send subscriptions as fast as received. Old and new names count the same, and they may be from different postoffices, but in every list sent for a premium it is expected that some shall be new names. Send with each list the exact amount of money.

Any list can be closed at any time and the premium desired will be forwarded; or additional names can be added up to May 1, 1883.

All premiums will be forwarded by express at the expense of the receiver, unless we state that they will be sent free by mail. Any article sent by mail will be registered on receipt by us of the registry fee of 10 cents.

SEND MONEY BY POSTAL MONEY ORDER, DRAFT OR CHECK, OR BY REGISTERED LETTER. Money sent by unregistered letter is at sender's risk.

PREMIUMS.

No. 1. Black Walnut Hand Stereoscope and six views. Price \$1.50. We will furnish by mail, postage paid, for two subscribers at \$1.50, or five at \$1.00.

No. 2. Black Walnut Hand Stereoscope, with Tulip Wood Hood, (better lens than No. 1.) and six views. Price \$1.75. We will send this by mail, postage paid, for three subscribers at \$1.50, or six at \$1.00.

No. 3. Satin Wood Polished Hand Stereoscope, nickel trimmed, (fixed or folding,) and one dozen views. Price \$3.00. We will send this for four subscribers at \$1.50, or ten at \$1.00. [This premium is a very handsome one, adapted for a present, and will be appreciated by any one of taste for art.]

No. 4. Photograph Album, Morocco covered, with clasp and ornamented sides, with places for twenty-four pictures. Price 65 cents. We will send this by mail, postage paid, to any present subscriber who will send one new one at \$1.50.

No. 5. Photograph Album, Morocco, paneled sides, gilt edges, embossed, with places for forty pictures. Price \$1.25. We will furnish this by mail for two subscribers at \$1.50, or five (new and old) at \$1.00.

No. 6. Photograph Album, Morocco, heavy beveled cover, embossed deep gilt edges, nickel clasp and hinged back, with places for fifty cards. Price \$3.00. We will send this for three subscribers at \$1.50, or eight at \$1.00.

No. 7. One Hundred Plants of the Mount Vernon Strawberry.—This is one of the most promising of the newer varieties; a strong, healthy grower; enormously productive, and is said to have produced 300 bushels of fruit to the acre. It has the desirable quality of blossoming very late, thus escaping injury by late frosts, often so destructive. It is moderately firm and of a fine bright scarlet color and excellent quality. It is the berry for home consumption and for not too distant markets; averaging large in size, (which is kept up till end of season,) whilst the plant is free from blight and scald and remarkably prolific. It is identical with Kirkwood. It promises to become, uniting so many excellent qualities, one of the most popular sorts. For two subscribers at \$1.50, or five at \$1.00. Sent postage paid.

No. 8. One Hundred Plants of Miner's Great Prolific Strawberry.—This variety is of general excellence and adaptation to all circumstances. It is a superb berry, averaging very large and uniform in size, continuing to bearing a long time. Its color is a deep crimson; flavor good; foliage clean, healthy and luxuriant. It is extremely productive. It has a glossy green cap which holds firmly even when full ripe. The berry is moderately firm and a tolerably good shipping sort. For two subscribers at \$1.50, or five at \$1.00. Sent postage paid.

No. 9. Twenty-five Plants of Queen of the Market (or Cuthbert) Raspberry.—In no other variety are there so many good qualities combined. It is large in size, firm in texture, of a fine appearance and handsome red color, of strong vigorous growth of cane; hardy and remarkably productive. To all this must be added that wide trial shows it to succeed in every locality—to be of universal adaptation to all sections, situations and soils. For two subscribers at \$1.50, or five at \$1.00. Sent postage paid.

No. 10. The following Splendid Hardy Ornamental Flowering Shrubs:—Hydrangea Paniculata Grandiflora. Viburnum Plicatum. Syringa Japonica.

These comprise the three most beautiful species of late introduction, and all should find a place in the garden or yard of every reader of the American Farmer, each being emphatically "a thing of beauty." Sent by mail, prepaid, for two subscriptions at \$1.50, or five at \$1.00.

No. 11. Handsome Gold Ring, Cameo Set, for lady or gent. Price \$5.00. We will furnish this by mail, postage paid, for five subscribers at \$1.50, or fifteen at \$1.00.

No. 11 A. Elegant Gold Ring, Cameo and Pearl Set, for lady. Price \$6.00. We will send this by mail, postage paid, for six subscribers at \$1.50, or twenty at \$1.00.

No. 12. Gent's Seal Ring.—Beautiful design. Price \$12.00. For twelve subscribers at \$1.50, or forty at \$1.00.

No. 13. Gent's Double Curb Watch Chain.—Rolled Plate; tips of solid gold. Price \$5.00. We will send this by mail for five subscribers at \$1.50, or twelve at \$1.00.

No. 14. Watch Chain, same as No. 13, but heavier. Price \$6.00. We will send for six subscribers at \$1.50, or sixteen at \$1.00.

No. 15. Lady's Guard Chain.—Rolled Plate. Price \$10.00. We will furnish this, by mail, postage paid, for ten subscribers, at \$1.50, or thirty-six at \$1.00.

No. 16. Lady's Guard Chain, same as No. 15, but heavier. Price \$14.00. This we will send for fourteen subscribers at \$1.50, or fifty at \$1.00.

No. 22. Silver Open Face Lepine Watch.—Good time keeper. Price \$9.00. We will give this watch for twelve subscribers at \$1.50, or thirty-six at \$1.00, by mail, postage paid.

No. 18. Silver Hunting Case Lepine Watch.—Smaller than No. 22. A good time-piece. Price \$7.50. This watch we offer for ten subscribers at \$1.50, or thirty at \$1.00, and forward by mail, postage paid.

No. 19. Silver Open Face American Watch.—A good honest, low-priced watch. Price \$11.00. We will give it for fifteen subscribers at \$1.50, or forty at \$1.00.

No. 20. Silver Hunting Case American Watch.—A serviceable cheap time-keeper. Price \$12.00. We offer this watch, by mail, postage paid, for fifteen subscribers at \$1.50, or forty at \$1.00.

SILVER-PLATED WARE.

From an established and reputable manufacturer. Triple plated on white metal base. Not the cheap stuff which has flooded the market, but substantial and reliable goods. Warranted as to quality and wear.

No. 21. Table Service of Six Pieces.—Comprising tea, coffee and hot-water urns, cream pitcher, sugar and slop bowls. Neat style. An admirable article. Price \$42.00. We will send this service, by express, for forty subscribers at \$1.50, or one hundred and ten at \$1.00.

No. 22. Table-Set of four Pieces.—A beautiful service. Price \$24.00. By express for twenty-four subscribers at \$1.50, or seventy-five at \$1.00.

No. 23. Ice Water Pitcher.—Handsome style. Price \$12.00. By express for twelve subscribers at \$1.50, or forty at \$1.00.

No. 24. Cake Basket.—Neat pattern. Price \$6.00. By express for six subscribers at \$1.50, or twenty at \$1.00.

No. 25. Butter Dish.—Late style. Price \$6.00. By express for six subscribers at \$1.50, or twenty at \$1.00.

No. 26. Pair Flower Vases.—Chaste pattern. Price \$7.50. Sent by express for eight subscribers at \$1.50, or twenty-five at \$1.00.

No. 27. Child's Drinking Cup.—Price \$3.00. By mail, postage paid, for four subscribers at \$1.50, or ten at \$1.00.

No. 28. Set of Six Napkin Rings.—Price \$3.00. By mail, postage paid, for four subscribers at \$1.50, or ten at \$1.00.

No. 29. Pickle Castor, with two glass jars. Price \$2.00. By express for three subscribers at \$1.50, or six at \$1.00.

No. 30. One Doz. S. P. Table Spoons.—Modern pattern. Price \$7.50. By mail, postage paid, for eight subscribers at \$1.50, or twenty-five at \$1.00.

No. 31. One Doz. S. P. Medium Forks.—Modern pattern. Price \$7.50. By mail for eight subscribers at \$1.50, or twenty-five at \$1.00.

No. 32. One Doz. S. P. Tea Spoons.—Price \$4.00. By mail for four subscribers at \$1.50, or fifteen at \$1.00.

No. 33. Fruit Knife.—Price \$1.50. By mail for two subscribers at \$1.50, or five at \$1.00.

No. 34. Child's Set, of knife, fork and spoon, in case. Price \$3.00. By mail for four subscribers at \$1.50, or ten at \$1.00.

No. 35. Child's Set, on card. Not so good as No. 34. Price \$1.50. By mail for two subscribers at \$1.50, or five at \$1.00.

No. 36. Pair Hangle Bracelets.—(Adjustable). New style. Price \$12.00. By mail for twelve subscribers at \$1.50, or forty at \$1.00.

No. 37. Enamelled Bracelet.—Very neat. Price \$6.00. By mail for six subscribers at \$1.50, or twenty at \$1.00.

No. 38. Bell-Head Pencil.—Rolled Plate. Price \$1.50. By mail for three subscribers at \$1.50, or five at \$1.00.

No. 39. Watch-Chain Pencil.—Price \$1.25. By mail for three subscribers at \$1.50, or five at \$1.00.

No. 40. Remington Single Barrel Breech-Loading Gun.—Price \$14.00. Weight 6½ pounds; sixteen gauge, 32-inch plain but fine quality barrel; no ornamentation, but shoots as well as a high-priced gun, and can be loaded and fired very rapidly. Just the gun for a country youth. We will send this gun by express for fifteen subscribers, at \$1.50, or forty-two at \$1.00.

No. 41. Remington Double Barrel Breech-Loading Shot Gun.—This gun has rebounding locks, extension rib and patent fore-end fastener; decarbonized steel barrels, 28 and 30 inch; 10 and 12 gauge; weight 8 to 8½ pounds. This gun is one of the most approved makes; with many advantages peculiar to itself, and worthy the reputation of the house which produces it. No sportsman can afford to pass by this opportunity we here give of getting this excellent gun on the liberal terms we offer. This uses either paper or brass cartridges, which may be reloaded many times. With the gun we send 24 Remington Brass Solid-head Shells, with Primer Extractor and Re-primer, and 500 No. 1 Primers. Price of gun \$40.00, extras \$4.00, total \$44.00. We will send this gun, by express, for fifty subscribers at \$1.50, or one hundred at \$1.00.

No. 42. Ladies Gossamer Rubber Waterproof Circular.—(With Hood.) Price \$5.00. This is best quality goods, and a useful, indeed necessary, article for every country woman. It is so small in bulk and so light, it can be carried in the pocket. Each one is put up in a separate bag in which it can be mailed. The circulars range in length from 50 to 60 inches, and in ordering give length desired from the neck to the hem of the dress. We will send one of these, of any size, by mail, postage paid, for five subscribers at \$1.50, or fifteen at \$1.00.

No. 43. Ladies Gossamer Newport Waterproof.—Price \$6.00. This is similar in shape to the circular, but has a cape surrounding the upper part of the body, and with the advantage of affording complete protection to the arms without impeding their freedom. The cape is also arranged to button and form a sleeve. Best quality. Sizes from 50 to 60 inches. We will give one of these in a pouch, free by mail, for six subscribers at \$1.50, or sixteen at \$1.00.



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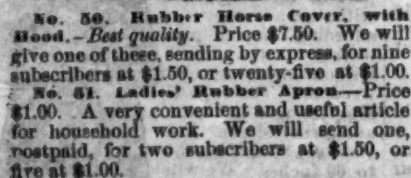
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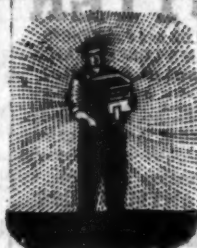
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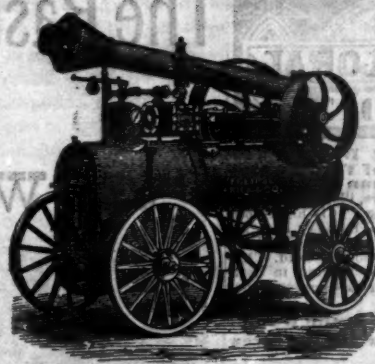
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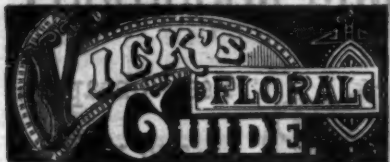
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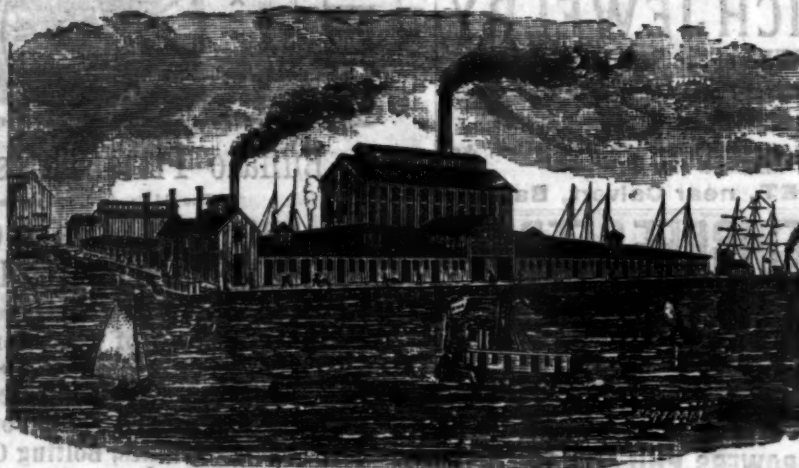
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